

فـنـرہـا  
Spirals

آبان ۱۳۹۸  
November 2019



قطعات پیش ساخته قالب های تزریق  
Standard Mould Making Components



سنبه، ماتریس، پین و پیران ها  
Punches, Dies, Dowel pins and Ejectors



قطعات پیش ساخته قالب های فلزی  
Standard Tool Making Components



فـنـرہـا  
Spirals



لوازم کمکی  
Accessories



چسب ها، افشانه ها  
Adhesives, Sprays



فهردها  
Spirings

<p>فهردها</p> <p><b>D64V D64L</b></p>  <p>Spring</p> <p>4.4</p>	<p>فهردها</p> <p><b>D64JG D64G</b></p>  <p>Spring</p> <p>4.6</p>	<p>فهردها</p> <p><b>D64JB D64B</b></p>  <p>Spring</p> <p>4.9</p>			
<p>فهردها</p> <p><b>D64JR D64R</b></p>  <p>Spring</p> <p>4.12</p>	<p>فهردها</p> <p><b>D64JY D64Y</b></p>  <p>Spring</p> <p>4.15</p>	<p>فهردها</p> <p><b>D64W D64S</b></p>  <p>Spring</p> <p>4.18</p>	<p>فهردها</p> <p><b>D63/80</b></p>  <p>Spring</p> <p>4.20</p>	<p>فهردها</p> <p><b>D63/90</b></p>  <p>Spring</p> <p>4.21</p>	
<p>فهردها</p> <p><b>D63/95</b></p>  <p>Spring</p> <p>4.22</p>	<p>فهردها بشقابی</p> <p><b>D62</b></p>  <p>Disc Spring</p> <p>4.23</p>	<p>واحد فهردها بندها</p> <p><b>D244</b></p>  <p>Combination Spring and Spacer Unit</p> <p>NEW</p> <p>4.24</p>	<p>واحد فهردها بندها</p> <p><b>D245</b></p>  <p>Combination Spring and Spacer Unit</p> <p>NEW</p> <p>4.25</p>	<p>فهردها گازی</p> <p><b>D611</b></p>  <p>Gas Spring</p> <p>4.26</p>	
<p>بیرون اندازه (فهردها گازی)</p> <p><b>D612</b></p>  <p>Spring Plungers</p> <p>NEW</p> <p>4.26</p>					



# TENSILE STRENGTH

## General Information

# استحکام کششی مواد

## اطلاعات عمومی

مشخصه Type	شماره مواد STD. NO.	استحکام کششی Tensile Strength	مشخصه Type	شماره مواد STD. NO.	استحکام کششی Tensile Strength	مشخصه Type	استحکام کششی Tensile Strength	
<b>فولاد ساختمانی کربن دار گرم غلطک شده</b> DIN EN 10025(1994-03)			<b>ریق و نوار از فولاد نرم و سدره غلطک شده</b> DIN EN 10268 (1999-02)			<b>آلیاژهای آلومینیوم نورد شده</b> DIN EN 12163 (1998-04)		
S185	1.0035	290...510	DC01	1.0330	270...410	Al 99.5 (1050A)	65...95	
S235JR	1.0037	340...470	DC03	1.0347	270...370	Al Mn1 (3103)	90...130	
S235JRG1	1.0036	340...470	DC04	1.0338	270...350	Al Mn1Cu (3003)	95...135	
S235JRG2	1.0038	340...470	DC05	1.0312	270...330	Al Mg1 (5005)	100...145	
S235J0	1.0114	340...470	DC06	1.0873	270...350	Al Mg2 (5251)	160...200	
S235J2G3	1.0116	340...470	<b>ریق و نوار از فولاد میکروآلیاژی سرد غلطک شده</b> DIN EN 10130(1999-02)			Al Mg3 (5754)	190...240	
S235J2G4	1.0117	340...470	H240LA	1.0480	240...340	Al Mg5 (5019)	250...350	
S275JR	1.0044	410...560	H280LA	1.0489	280...370	Al Mg3Mn (5454)	215...275	
S275J0	1.0143	410...560	H320LA	1.0548	320...410	Al Mg4.5Mn0.7 (5083)	270...350	
S275J2G3	1.0144	410...560	H360LA	1.0550	360...460	Al Cu45SiMg (2014)	220	
S275J2G4	1.0145	410...560	H400LA	1.0556	400...500	Al Cu4Mg1 (2024)	220	
S355JR	1.0045	490...630	<b>ریق و نوار از فولاد کالومیزه آلیاژی سرد غلطک شده</b> DIN EN 10142 (2000-07)			Al Si1MgMn (6082)	150	
S355J0	1.0553	490...630	DX51D+Z	1.0226+Z	270...500	Al Zn4.5Mg1 (7020)	220	
S355J2G3	1.0570	490...630	DX51D+ZF	1.0226+ZF	270...500	Al Zn5Mg3Cu (7022)	450	
S355J2G4	1.0577	490...630	DX52D+Z	1.0350+Z	270...420	Al Zn5.5MgCu (7075)	275	
S355K2G3	1.0595	490...630	DX52D+ZF	1.0350+ZF	270...420	<b>آلیاژ من نورد شده (برنج)</b> DIN EN 12163 (1998-04)		
S355K2G4	1.0596	490...630	DX53D+Z	1.0355+Z	270...380	CuZn28 (CW504L)	460	
E295	1.0050	470...610	DX53D+ZF	1.0355+ZF	270...380	CuZn37 (CW508L)	440	
E335	1.0060	570...710	DX54D+Z	1.0306+Z	270...350	CuZn40 (CW509L)	340	
E360	1.0070	670...830	DX54D+ZF	1.0306+ZF	270...350	<b>آلیاژ من-ریزی (برنج)</b> DIN EN 12163 (1998-04)		
<b>فولاد کربنی و سدره شده</b> DIN EN 10083 (1996-10)			DX56D+Z	1.0322+Z	270...350	CuZn31Si (CW708R)	530	
C22	1.0402	410	DX56D+ZF	1.0322+ZF	270...350	CuZn38Mn1Al (CW716R)	550	
C22E	1.1151	470...620	<b>فولاد رنگ نزن</b> DIN EN 10088 (1995-08)			CuZn40Mn2Fe1 (CW723R)	540	
C25	1.0406	440	X10CrNi18-8	1.4310	500...750	<b>مشخصه نام استحکام کششی</b> Type Tensile Strength		
C25E	1.1158	500...650	X2CrNi18-9	1.4307	450...680	<b>ترموپلاستیک</b>		
C35	1.0501	520	X2CrNi19-11	1.4306	460...680	ABS	اکریل نیتریل-بوتادین-استیرن	35...56
C35E	1.1181	550...750	X2CrNi18-10	1.4311	550...760	PA 6	پلی آمید 6	43
C45	1.0503	580	X5CrNi18-10	1.4301	500...700	PA 66	پلی آمید 66	57
C45E	1.1191	630...800	X8CrNiS18-9	1.4305	500...750	PE-HD	پلی اتیلن، چگالی زیاد	20...30
C60	1.0601	670	X6CrNiTi18-10	1.4541	500...700	PE-LD	پلی اتیلن، چگالی کم	8...10
C60E	1.1221	750...950	X4CrNi18-12	1.4303	500...700	PMMA	پلی متیل متاکریلات	70...76
28Mn6	1.1170	600	X5CrNiMo17-12-2	1.4401	500...750	POM	پلی اکسی متیلن	50...70
38Cr2	1.7003	600...850	X6CrNiMoTi17-12-2	1.4571	500...700	PP	پلی پروپیلن	21...37
38CrS2	1.7023	600...850	X2CrNiMo18-14-3	1.4435	500...700	PS	پلی استیرن	40...65
46Cr2	1.7006	650...950	X2CrNiMoN17-13-3	1.4429	580...800	PTFE	پلی تترافلور اتیلن	15...35
46CrS2	1.7025	650...950	X2CrNiMoN17-13-5	1.4439	580...800	PVC-P	پلی وینیل کلراید، پلاستیکی	20...29
34Cr4	1.7033	700...950	X1NiCrMoCu25-20-5	1.4539	530...730	PVC-U	پلی وینیل کلراید غیر پلاستیکی	35...60
34CrS4	1.7037	700...950	X2CrNi12	1.4003	450...600	SAN	استیرن-اکریل-نیتریل-کوپلیمر	78
37CrS4	1.7038	750...1000	X6Cr13	1.4000	400...630	SB	استیرن-بوتادین-کوپلیمر	22...50
25CrMo4	1.7218	700...950	X6Cr17	1.4016	400...630	<b>الاستومر (لاستیک)</b>		
25CrMoS4	1.7213	700...950	X2CrTi12	1.4512	380...560	BR	بوتادین لاستیک	2 (18)
41Cr4	1.7035	800...1100	X6CrMo17-1	1.4113	440...660	CO	ایپکریلیدرین لاستیک	5 (15)
41CrS4	1.7039	800...1100	X3CrTi17	1.4510	430...630	CR	کلروپرن لاستیک	11 (25)
34CrMo4	1.7220	800...1100	X2CrMoTi18-2	1.4521	420...620	CSM	کلروسولفونواتان پلی اتیلن	18 (20)
34CrMoS4	1.7226	800...1100	<b>تیپایم، آلیاژ تیتانیوم</b> DIN EN 17860 (1990-11)			EPDM	اتیلن پروپیلن لاستیک	4 (25)
42CrMo4	1.7225	900...1200	Ti1	3.7025	290...410	FKM	فلوروپلاستیک	2 (15)
42CrMoS4	1.7227	900...1200	Ti2	3.7035	390...540	IIR	ایسوپرن-بوتادین لاستیک	5 (21)
50CrMo4	1.7228	900...1200	Ti3	3.7055	460...590	IR	ایسوپرن لاستیک	1 (24)
51CrV4	1.8159	900...1200	Ti1Pd	3.7225	290...410	NBR	اکریلونیتریل بوتادین لاستیک	6 (25)
36CrNiMo4	1.6511	900...1200	Ti2Pd	3.7235	390...540	NR	لاستیک طبیعی-ایسوپرن لاستیک	22 (27)
34CrNiMo6	1.6582	1000...1300	TiAl6V6Sn2	3.7175	1070	PUR	پلی اورتان لاستیک	20 (30)
30NiCrMo8	1.6580	1100...1450	TiAl6V4	3.7165	920	SIR	استیرن-ایسوپرن لاستیک	1 (8)
36NiCrMo16	1.6773	1100...1450	TiAl4Mo4Sn2	3.7185	1050	SBR	استیرن-بوتادین لاستیک	5 (25)

- These amounts are according to N/mm<sup>2</sup>

- برای سایر مواد به کتاب جداول استاندارد نوشته Ulrich Fisher مراجعه گردد.  
- مقادیر ارائه شده بر حسب N/mm<sup>2</sup>

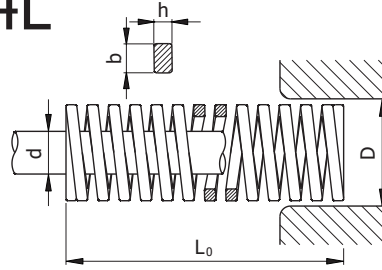
**HIGH PERFORMANCE COMPRESSION SPRING**

Rectangular Wire-Violet/Light Green Color  
DIN/ISO 10243

فتر  
مقطع مفتول فتر مستطیل - بنفش / سبز روشن



D64V  
D64L



کد سفارش Ordering Code	D (b x h)	d	L <sub>0</sub>	R (Rate) ضریب فتر ±10%	A 30% دوام 3.000.000 ضرب		B 40% دوام 1.500.000 ضرب		C 50% Max Defl دوام 200.000 ضرب		D Approx تعیین طول تقریبی تا بسته شدن 
					mm	mm	mm	N/mm	mm	N	mm
D64.../20/025	20 (3.9 x 1.7)	10	25	32.1	7.5	241	10	321	12.5	401	14
D64.../20/032			32	24.7	9.6	237	12.8	316	16	395	18
D64.../20/038			38	20.7	11.4	236	15.2	315	19	393	22
D64.../20/044			44	17.8	13.2	235	17.6	313	22	392	26
D64.../20/051			51	15.3	15.3	234	20.4	312	25.5	390	30
D64.../20/064			64	12.1	19.2	232	25.6	310	32	386	38
D64.../20/076			76	10.2	22.8	232	30.4	310	38	386	45
D64.../20/089			89	8.6	26.7	230	35.6	306	44.5	384	53
D64.../20/102			102	7.5	30.6	229	40.8	306	51	384	62
D64.../20/115			115	6.7	34.5	231	46	308	57.5	384	70
D64.../20/127			127	6.1	38.1	232	50.8	310	63.5	386	77
D64.../20/139			139	5.5	41.7	229	55.6	306	69.5	385	85
D64.../20/152			152	5.1	45.6	233	60.8	310	76	284	93
D64.../20/305	305	2.5	91.5	229	122	305	152.5	384	188		
D64.../25/025	25 (5.4 x 2.2)	12.5	25	52.7	7.5	395	10	527	12.5	658	14
D64.../25/032			32	40	9.6	384	12.8	512	16	640	18
D64.../25/038			38	33.3	11.4	380	15.2	506	19	634	22
D64.../25/044			44	28.6	13.2	378	17.6	503	22	629	25
D64.../25/051			51	24.7	15.3	378	20.4	504	25.5	630	30
D64.../25/064			64	19.4	19.2	372	25.6	497	32	622	38
D64.../25/076			76	16.3	22.8	372	30.4	496	38	618	45
D64.../25/089			89	13.9	26.7	371	35.6	495	44.5	618	53
D64.../25/102			102	12.1	30.6	370	40.8	494	51	618	61
D64.../25/115			115	10.8	34.5	373	46	497	57.5	619	70
D64.../25/127			127	9.8	38.1	373	50.8	498	63.5	620	77
D64.../25/139			139	8.9	41.7	371	55.6	495	69.5	618	85
D64.../25/152			152	8.1	45.6	369	60.8	492	76	616	93
D64.../25/178	178	6.9	53.4	368	71.2	491	89	616	109		
D64.../25/203	203	6.1	60.9	371	81.2	495	101.5	615	124		
D64.../25/305	305	4	91.5	366	122	488	152.5	613	188		
D64.../32/038	32 (6.5 x 2.6)	16	38	43.8	11.4	499	15.2	666	19	831	22
D64.../32/044			44	37.5	13.2	495	17.6	660	22	825	26
D64.../32/051			51	32.3	15.3	494	20.4	659	25.5	823	21

## HIGH PERFORMANCE COMPRESSION SPRING

Rectangular Wire-Violet/Light Green Color

DIN/ISO 10243

فنر

مقطع مفتول فنر مستطیل - بنفش / سبز روشن

کد سفارش Ordering Code	D (b x h)	d	L <sub>0</sub>	R (Rate) ضریب فنر ±10%	A 30% دوام 3.000.000 ضرب		B 40% دوام 1.500.000 ضرب		C 50% Max Defl دوام 200.000 ضرب		D Approx تخمین طول تقریبی تا بسته شدن 
					mm	mm	mm	N/mm	mm	N	mm
D64.../32/064	32	16	64	25.4	19.2	488	25.6	650	32	813	39
D64.../32/076			76	21.3	22.8	486	30.4	648	38	809	47
D64.../32/089			89	18.1	26.7	483	35.6	644	44.5	804	56
D64.../32/102			102	15.8	30.6	483	40.8	645	51	803	64
D64.../32/115			115	13.9	34.5	479	46	639	57.5	800	73
D64.../32/127			127	12.6	38.1	480	50.8	640	63.5	799	81
D64.../32/139			139	11.4	41.7	475	55.6	634	69.5	796	89
D64.../32/152			152	10.5	45.6	479	60.8	638	76	800	97
D64.../32/178			178	8.9	53.4	475	71.2	634	89	796	114
D64.../32/203			203	7.8	60.9	475	81.2	633	101.5	793	131
D64.../32/254			254	6.2	76.2	472	101.6	630	127	784	163
D64.../32/305			305	5.2	91.5	476	122	634	125.5	788	197
D64.../40/051	40	20	51	50.8	15.3	777	20.4	1036	25.5	1297	26
D64.../40/064			64	39.7	19.2	762	25.6	1016	32	1269	34
D64.../40/076			76	33.1	22.8	755	30.4	1006	38	1256	40
D64.../40/089			89	28.1	26.7	750	35.6	1000	44.5	1249	48
D64.../40/102			102	24.5	30.6	750	40.8	1000	51	1249	55
D64.../40/115			115	21.6	34.5	745	46	994	57.5	1244	63
D64.../40/127			127	19.5	38.1	743	50.8	991	63.5	1239	70
D64.../40/139			139	17.8	41.7	742	55.6	990	69.5	1238	76
D64.../40/152			152	16.3	45.6	743	60.8	991	76	1235	84
D64.../40/178			178	13.8	53.4	737	71.2	983	89	1231	99
D64.../40/203			203	12.1	60.9	737	81.2	983	101.5	1232	113
D64.../40/254			254	9.7	76.2	739	101.6	986	127	1227	142
D64.../40/305	305	8	91.5	732	122	976	152.5	1226	171		
D64.../50/064	50	25	64	80.2	19.2	1540	25.6	2053	32	2566	37
D64.../50/076			76	66.9	22.8	1525	30.4	2034	38	2544	45
D64.../50/089			89	56.6	26.7	1511	35.6	2015	44.5	2519	53
D64.../50/102			102	49.3	30.6	1509	40.8	2011	51	2517	62
D64.../50/115			115	43.5	34.5	1501	46	2001	57.5	2501	70
D64.../50/127			127	39.3	38.1	1497	50.8	1996	63.5	2494	78
D64.../50/139			139	35.8	41.7	1493	55.6	1990	69.5	2489	85
D64.../50/152			152	32.8	45.6	1496	60.8	1994	89	2490	94
D64.../50/178			178	27.8	53.4	1485	71.2	1979	76	2474	110
D64.../50/203			203	24.2	60.9	1474	81.2	1965	101.5	2457	126
D64.../50/254			254	19.2	76.2	1463	101.6	1951	127	2444	159
D64.../50/305			305	16	91.5	1464	122	1952	152.5	2446	192

Spring Temperature Range:

محدوده دمای فنر:

Temperature Range / محدوده دما	Spring / فنر
-30°C ~ 150°C	D64J...
-30°C ~ 120°C	D64...

- Up to 250°C should be considered an average loss of 1% on springs rate for every 40°C.

- در صورتی که دما تا ۲۵۰ درجه سانتی گراد باشد به نسبت هر ۴۰ درجه می بایست افت یک درصدی از ضریب فنر در نظر گرفته شود.

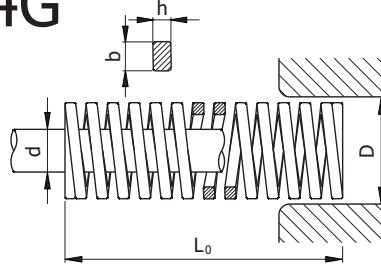
**HIGH PERFORMANCE COMPRESSION SPRING**  
 Rectangular Wire-Green Color  
 DIN/ISO 10243

فنر  
 مقطع مفتول فنر مستطیل - رنگ سبز

Green  
 سبزر



D64JG  
 D64G



کد سفارش Ordering Code	D d (b x h)		L <sub>0</sub>	D64 (Rate) فنر سبزر ±10%		D64J (Rate) فنر سبزر ±10%		A 25% دوام 3.000.000 سبزر			B 30% دوام 1.500.000 سبزر			C 40%Max. defl بیشترین تغییر طول مجاز دوام 200.000 سبزر			D Approx تغییر طول تقریبی تا بسته شدن		
	mm	mm		N/mm	N/mm	mm	N		mm	N		mm	N		mm		N		
							D64	D64J		D64	D64J		D64	D64J	D64J	D64	D64		
D64.../10/025	10	5	25	10	12	6.3	63	75	7.5	75	90	10	100	120	10.5	13	130		
D64.../10/032			32	8.5	9.4	8	68		9.6	82		12.8	109		13.4	16	136		
D64.../10/038			38	6.8	7.9	9.5	65		11.4	78		15.2	103		16	20	136		
D64.../10/044			44	6	6.8	11	66		13.2	79		17.6	106		18.5	24	144		
D64.../10/051			51	5	5.9	12.8	64		15.3	77		20.4	102		21.4	27	135		
D64.../10/064			64	4.3	4.7	16	69		19.2	83		25.6	110		26.9	35	151		
D64.../10/076			76	3.2	3.9	19	61		22.8	73		30.4	97		31.9	39	125		
D64JG/10/089			89	-	3.4	22.3	-		26.7	-		35.6	-		37.4	-	-		
D64JG/10/102			102	-	2.9	25.5	-		30.6	-		40.8	-		42.8	-	-		
D64.../10/305	305	1.1	1	76.3	84	91.5	101	122	134	128.1	154	169							
D64.../13/025	12.5	6.3	25	17.9	24	6.3	113	150	7.5	134	180	10	179	240	10.5	13	233		
D64.../13/032			32	16.4	18.8	8	131		9.6	157		12.8	210		13.4	17	279		
D64.../13/038			38	13.6	15.8	9.5	129		11.4	155		15.2	207		16	21	286		
D64.../13/044			44	12.1	13.6	11	133		13.2	160		17.6	213		18.5	26	315		
D64.../13/051			51	11.4	11.8	12.8	146		15.3	174		20.4	233		21.4	29	331		
D64.../13/064			64	9.3	9.4	16	149		19.2	179		25.6	238		26.9	37	344		
D64.../13/076			76	7.1	7.9	19	135		22.8	162		30.4	216		31.9	42	298		
D64.../13/089			89	5.4	6.7	22.3	120		26.7	144		35.6	192		37.4	50	270		
D64.../13/102			102	4.6	5.9	25.5	117		30.6	141		40.8	188		42.8	58	267		
D64JG/13/115	115	-	5.2	28.8	-	34.5	-	46	-	48.3	-	-							
D64.../13/305	305	1.4	2	76.3	107	91.5	128	122	171	128.1	162	227							
D64.../16/025	16	8	25	23.4	30	6.3	147	188	7.5	176	225	10	234	300	10.5	13	304		
D64.../16/032			32	22.9	23.4	8	183		9.6	220		12.8	293		13.4	17	389		
D64.../16/038			38	19.3	19.7	9.5	183		11.4	220		15.2	293		16	20	386		
D64.../16/044			44	17.1	17	11	188		13.2	226		17.6	301		18.5	25	428		
D64.../16/051			51	15.7	14.7	12.8	201		15.3	240		20.4	320		21.4	27	424		
D64.../16/064			64	10.7	11.7	16	171		19.2	205		25.6	274		26.9	36	385		
D64.../16/076			76	10	9.9	19	190		22.8	228		30.4	304		31.9	43	430		
D64.../16/089			89	8.6	8.4	22.3	192		26.7	230		35.6	306		37.4	52	447		
D64.../16/102			102	7.8	7.4	25.5	199		30.6	239		40.8	318		42.8	58	452		
D64JG/16/115	115	-	6.5	28.8	-	34.5	-	46	-	48.3	-	-							
D64JG/16/127	127	-	5.9	31.8	-	38.1	-	50.8	-	53.3	-	-							
D64.../16/305	305	2.5	2.5	76.3	191	91.5	229	122	305	128.1	166	415							

**HIGH PERFORMANCE COMPRESSION SPRING**  
 Rectangular Wire-Green Color  
 DIN/ISO 10243

فندر  
 مقطع مفتول فنر مستطیل - رنگ سبز

کد سفارش Ordering Code	D (b x h)	d	L <sub>0</sub>	D64 (Rate) فندر ±10%	D64J (Rate) فندر ±10%	A 25% دوام 3.000.000 فنر 		B 30% دوام 1.500.000 فنر 		C 40% Max. defl بیشترین تغییر طول مجاز دوام 200.000 فنر 		D Approx تغییر طول تقریبی تأیید شده 		
				N/mm	N/mm	mm	N		mm	N		mm	N	
				mm	mm	mm	D64	D64J	mm	D64	D64J	mm	D64	D64J
D64.../20/025	20	10	25	55.8	60	6.3	325	7.5	419	10	558	10.5	13	725
D64.../20/032			32	45	46.9	8	360	9.6	432	12.8	576	13.4	17	765
D64.../20/038			38	33.3	39.5	9.5	316	11.4	380	15.2	506	16	20	666
D64.../20/044			44	30	34.1	11	330	13.2	396	17.6	528	18.5	24	720
D64.../20/051			51	24.5	29.4	12.8	314	15.3	375	20.4	500	21.4	27	662
D64.../20/064			64	20	23.4	16	320	19.2	384	25.6	512	26.9	35	700
D64.../20/076			76	16	19.7	19	304	22.8	365	30.4	486	31.9	40	640
D64.../20/089			89	14	16.9	22.3	312	26.7	374	35.6	498	37.4	49	686
D64.../20/102			102	12	14.7	25.5	306	30.6	367	40.8	490	42.8	55	660
D64.../20/115			115	10.9	13	28.8	314	34.5	376	46	501	48.3	62	676
D64.../20/127			127	9.5	11.8	31.8	302	38.1	362	50.8	483	53.3	71	675
D64.../20/139			139	8.4	10.8	34.8	394	41.7	350	55.6	467	58.4	76	638
D64.../20/152			152	7.5	9.9	38	385	45.6	342	60.8	456	63.8	81	608
D64JG/20/178			178	-	8.4	44.5	-	53.4	-	71.2	-	74.8	-	-
D64JG/20/203			203	-	7.4	50.8	-	60.9	-	81.2	-	85.3	-	-
D64.../20/305			305	4	4.9	76.3	305	91.5	366	122	448	128.1	168	672
D64.../25/025	25	12.5	25	100	90	6.3	630	7.5	750	10	1000	10.5	12	1200
D64.../25/032			32	80.3	70.3	8	642	9.6	771	12.8	1028	13.4	16	1285
D64.../25/038			38	62	59.2	9.5	589	11.4	707	15.2	942	16	19	1178
D64.../25/044			44	52.9	51.1	11	582	13.2	698	17.6	931	18.5	22	1164
D64.../25/051			51	44	44.1	12.8	563	15.3	673	20.4	898	21.4	25	1100
D64.../25/064			64	35.2	35.2	16	563	19.2	676	25.6	901	26.9	34	1197
D64.../25/076			76	28	29.6	19	532	22.8	638	30.4	851	31.9	38	1064
D64.../25/089			89	24	25.3	22.3	535	26.7	641	35.6	854	37.4	48	1152
D64.../25/102			102	21	22.1	25.5	538	30.6	646	40.8	861	42.8	54	1139
D64.../25/115			115	18.7	19.6	28.8	539	34.5	645	46	860	48.3	61	1141
D64.../25/127			127	16.7	17.7	31.8	531	38.1	636	50.8	848	53.3	69	1152
D64.../25/139			139	15.3	16.2	34.8	536	41.7	638	55.6	851	58.4	75	1148
D64.../25/152			152	14	14.8	38	532	45.6	638	60.8	851	63.8	81	1134
D64.../25/178			178	12.5	12.6	44.5	556	53.4	668	71.2	890	74.8	96	1200
D64.../25/203			203	10.4	11.1	50.8	528	60.9	633	81.2	844	85.3	110	1144
D64JG/25/229			229	-	9.8	57.3	-	68.7	-	91.6	-	96.2	-	-
D64.../25/305	305	7	7.4	76.3	534	91.5	641	122	854	128.1	168	1176		
D64.../32/038	32	16	38	94	92.1	9.5	893	11.4	1072	15.2	1429	16	18	1692
D64.../32/044			44	79.5	79.5	11	875	13.2	1049	17.6	1399	18.5	22	1749
D64.../32/051			51	67	68.6	12.8	858	15.3	1025	20.4	1367	21.4	25	1675
D64.../32/064			64	53	54.7	16	848	19.2	1018	25.6	1357	26.9	34	1802
D64.../32/076			76	44	46.1	19	836	22.8	1003	30.4	1338	31.9	40	1760
D64.../32/089			89	37.2	39.3	22.3	830	26.7	993	35.6	1324	37.4	48	1786
D64.../32/102			102	32	34.3	25.5	816	30.6	979	40.8	1306	42.8	55	1760
D64.../32/115			115	29	30.4	28.8	835	34.5	1001	46	1334	48.3	63	1827
D64.../32/127			127	25	27.6	31.8	795	38.1	953	50.8	1270	53.3	69	1725
D64.../32/139			139	23	25.2	34.8	805	41.7	959	55.6	1279	58.4	77	1771
D64.../32/152			152	21.5	23	38	817	45.6	980	60.8	1307	63.8	81	1742
D64.../32/178			178	18.2	19.7	44.5	810	53.4	972	71.2	1296	74.8	95	1729
D64.../32/203			203	15.8	17.2	50.8	803	60.9	962	81.2	1283	85.3	112	1770
D64JG/32/229			229	15.3	15.3	57.3	-	68.7	-	91.6	-	96.2	-	-
D64.../32/254			254	12.5	13.8	63.5	794	76.2	953	101.6	1270	106.7	143	1788
D64.../32/305			305	10.3	11.5	76.3	786	91.5	942	122	1257	128.1	175	1803
D64.../40/051	40	20	51	92	98	12.8	1178	15.3	1408	20.4	1877	21.4	25	2300
D64.../40/064			64	73	78.1	16	1168	19.2	1402	25.6	1869	26.9	33	2409
D64.../40/076			76	63	65.8	19	1197	22.8	1436	30.4	1915	31.9	39	2457
D64.../40/089			89	51	56.2	22.3	1137	26.7	1362	35.6	1816	37.4	47	2397
D64.../40/102			102	43	49	25.5	1097	30.6	1316	40.8	1754	42.8	54	2322



# HIGH PERFORMANCE COMPRESSION SPRING

Rectangular Wire-Green Color

DIN/ISO 10243

فنر

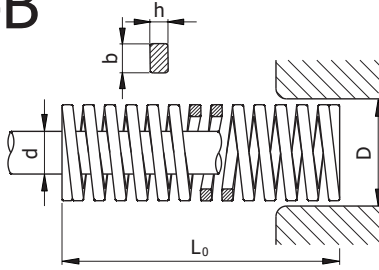
مقطع مفتول فنر مستطیل - رنگ سبز

کد سفارش Ordering Code	D d (b x h)		L <sub>0</sub>	D64 (Rate) فنر ±10%	D64J (Rate) فنر ±10%	A 25% دوام 3,000,000 ضرب		B 30% دوام 1,500,000 ضرب		C 40% Max. defl بیشترین تغییر طول مجاز دوام 200,000 ضرب		D Approx تغییر طول تقریبی تا بسته شدن				
	mm	mm		mm	N/mm	N/mm	mm	N	mm	N	mm	N	mm	N		
							D64	D64J	D64	D64J	D64	D64J	D64J	D64	D64	
D64.../40/115	40	20	115	39.6	43.5	28.8	1140	34.5	1366	46	1822	48.3	61	2416		
D64.../40/127			127	37	39.4	31.8	1177	38.1	1410	50.8	1880	53.3	66	2442		
D64.../40/139			139	32	36	34.8	1120	41.7	1334	55.6	1779	58.4	76	2432		
D64.../40/152			D64 (8 x 4)	152	28	32.9	38	1064	45.6	1277	60.8	1702	63.8	81	2268	
D64.../40/178				178	25.2	28.1	44.5	1121	53.4	1346	71.2	1794	74.8	93	2344	
D64.../40/203				203	22.7	24.6	50.8	1153	60.9	1382	81.2	1843	85.3	110	2497	
D64JG/40/229			D64J (8.6 x 4)	229	-	21.8	57.3	-	68.7	-	91.6	-	96.2	-	-	
D64.../40/254				254	17	19.7	63.5	1080	76.2	1295	101.6	1727	106.7	136	2312	
D64.../40/305				305	14.8	16.4	76.3	1129	91.5	1354	122	1806	128.1	163	2412	
D64.../50/064	50	25	64	156	156.3	16	2995	19.2	2995	25.6	3994	26.9	31	4836		
D64.../50/076			76	125	131.6	19	2850	22.8	2850	30.4	3800	31.9	36	4500		
D64.../50/089			89	109	112.4	22.3	2910	26.7	2910	35.6	3880	37.4	44	4796		
D64.../50/102			D64 (11.1x 5.5)	102	94	98	25.5	2876	30.6	2876	40.8	3835	42.8	49	4606	
D64.../50/115				115	81	87	28.8	2795	34.5	2795	46	3726	48.3	60	4860	
D64.../50/127				127	71	78.7	31.8	2705	38.1	2705	50.8	3607	53.3	64	4544	
D64.../50/139			D64J (12 x 4)	139	66.5	71.9	34.8	2773	41.7	2773	55.6	3697	58.4	70	4655	
D64.../50/152				152	60	65.8	38	2736	45.6	2736	60.8	3648	63.8	77	4620	
D64.../50/178				178	52	56.2	44.5	2777	53.4	2777	71.2	3702	74.8	94	4888	
D64.../50/203			203	44	49.3	50.8	2235	60.9	2680	81.2	3573	85.3	105	4620		
D64.../50/229			229	38.2	43.7	57.3	2189	68.7	2624	91.6	3499	96.2	126	4813		
D64.../50/254			254	35	39.4	63.5	2223	76.2	2667	101.6	3556	106.7	137	4795		
D64.../50/305			305	28.5	32.8	76.3	2175	91.5	2608	122	3477	128.1	168	4788		
D64.../63/076			63	38	76	189	197.4	19	3591	22.8	4309	30.4	5746	31.9	38	7182
D64.../63/089					89	158	168.5	22.3	3523	26.7	4219	35.6	5625	37.4	45	7110
D64.../63/102	102	131			147.1	25.5	3341	30.6	4009	40.8	5345	42.8	52	6812		
D64.../63/115	115	116			130.4	28.8	3341	34.5	4002	46	5336	48.3	60	6960		
D64.../63/127	D64 (11.1x 5.5)	127			103	118.1	31.8	3275	38.1	3924	50.8	5232	53.3	63	6489	
D64.../63/152		152			84.3	98.7	38	3203	45.6	3844	60.8	5125	63.8	78	6575	
D64.../63/178		178			71.5	84.3	44.5	3182	53.4	3818	71.2	5091	74.8	89	6364	
D64.../63/203	D64J (12 x 4)	203			61.7	73.9	50.8	3134	60.9	3758	81.2	5010	85.3	108	6664	
D64JG/63/229		229			-	65.5	57.3	-	68.7	-	91.6	-	96.2	-	-	
D64.../63/254		254			47	59.1	63.5	2985	76.2	3581	101.6	4775	106.7	137	6439	
D64.../63/305	305	38.2			49.2	76.3	2915	91.5	3459	122	4660	128.1	163	6227		

**HIGH PERFORMANCE COMPRESSION SPRING**  
 Rectangular Wire-Blue Color  
 DIN/ISO 10243

فنر  
 مقطع مفتول فنر مستطیل - رنگ آبی

**D64JB**  
**D64B**



Blue  
 آبی



کد سفارش Ordering Code	D d (b x h)		L <sub>0</sub>	D64 (Rate) فنر ضرب ±10%		D64J (Rate) فنر ضرب ±10%		A 25% دوام 3.000.000 ضرب		B 30% دوام 1.500.000 ضرب		C 37.5%Max. defl بیشترین تغییر طول مجاز دوام 200.000 ضرب		D Approx تغییر طول تقریبی تا بسته شدن						
	mm	mm		N/mm	N/mm	mm	N		mm	N		mm	N		mm	N				
						D64	D64J		D64	D64J		D64	D64J	D64J	D64	D64				
D64.../10/025	10	5	25	16	18.1	6.3	100	113	7.5	120	136	9.4	150	170	9.9	12	192			
D64.../10/032			32	13	14.2	8	104		9.6	125		12	156		12.6	14	182			
D64.../10/038			38	11.9	11.9	9.5	113		11.4	136		14.3	170		15	19	226			
D64.../10/044			44	10.3	10.3	11	113		13.2	136		16.5	170		17.4	23	237			
D64.../10/051			51	8.9	8.9	12.8	113		15.3	136		19.1	170		20.1	27	240			
D64.../10/064			64	7.5	7.1	16	120		19.2	144		24	180		25.3	31	233			
D64.../10/076			76	5.3	6	19	101		22.8	121		28.5	151		30	37	196			
D64JB/10/089			D64J	89	-	5.1	22.3		-	-		26.7	-		33.4	-	35.2	-	-	-
D64JB/10/102			(1.9 x 1.3)	102	-	4.4	25.5		-	-		30.6	-		38.3	-	40.3	-	-	-
D64.../10/305			305	1.6	1.5	76.3	122		91.5	146		114.4	183		120.5	137	219			
D64.../13/025	12.5	6.3	25	30	32	6.3	188	200	7.5	225	240	9.4	281	300	9.9	10	300			
D64.../13/032			32	24.8	25	8	198		9.6	238		12	298		12.6	13	322			
D64.../13/038			38	21.4	21.1	9.5	203		11.4	244		14.3	305		15	16	342			
D64.../13/044			44	18.5	18.2	11	204		13.2	244		16.5	305		17.4	20	370			
D64.../13/051			51	15.5	15.7	12.8	198		15.3	237		19.1	296		20.1	25	388			
D64.../13/064			64	12.1	12.5	16	194		19.2	232		24	290		25.3	28	339			
D64.../13/076			76	10.2	10.5	19	194		22.8	233		28.5	291		30	34	347			
D64.../13/089			D64J	89	8.4	9	22.3		187	224		26.7	224		33.4	280	35.2	41	344	
D64.../13/102			(2.8 x 1.3)	102	7.1	7.8	25.5		181	217		30.6	217		38.3	272	40.3	46	327	
D64JB/13/115			115	-	7	28.8	-		34.5	-		43.1	-		45.4	-	-	-	-	
D64.../13/305	305	2.1	2.6	76.3	160	91.5	192	114.4	240	120.5	128	269								
D64.../16/025	16	8	25	49.4	53.3	6.3	309	333	7.5	371	400	9.4	463	500	9.9	11	543			
D64.../16/032			32	37.1	41.7	8	297		9.6	356		12	445		12.6	15	557			
D64.../16/038			38	33.9	35.1	9.5	322		11.4	386		14.3	483		15	18	610			
D64.../16/044			44	30	30.3	11	330		13.2	396		16.5	495		17.4	22	660			
D64.../16/051			51	26.4	26.1	12.8	337		15.3	404		19.1	505		20.1	24	634			
D64.../16/064			64	20.5	20.8	16	328		19.2	394		24	492		25.3	32	656			
D64.../16/076			76	17.8	17.5	19	338		22.8	406		28.5	507		30	36	641			
D64.../16/089			D64J	89	15.2	15	22.3		338	406		26.7	406		33.4	507	35.2	43	654	
D64.../16/102			(3.2 x 2.2)	102	13.5	13.1	25.5		344	413		30.6	413		38.3	516	40.3	47	635	
D64JB/16/115			115	-	11.6	28.8	-		34.5	-		48.1	-		45.4	-	-	-		
D64JB/16/127	127	-	10.5	31.8	-	38.1	-	47.6	-	50.2	-	-	-							
D64.../16/305	305	4.8	4.4	76.3	366	91.5	439	114.4	549	120.5	139	667								

**HIGH PERFORMANCE COMPRESSION SPRING**  
 Rectangular Wire-Blue Color  
 DIN/ISO 10243

فنر  
 مقطع مفتول فنر مستطیل - رنگ آبی

کد سفارش Ordering Code	D (b x h)	d	L <sub>0</sub>	D64 (Rate) ضرب فنر ±10%	D64J (Rate) ضرب فنر ±10%	A 25% دوام 3.000.000 ضرب		B 30% دوام 1.500.000 ضرب		C 37.5%Max. defl بیشترین تغییر طول مجاز دوام 200.000 ضرب		D Approx تعمیر طول تقریبی تا بسته شدن				
				N/mm	N/mm	mm	N		mm	N		mm	N		mm	N
							D64	D64J		D64	D64J		D64	D64J		
D64.../20/025	20	10	25	98	85.3	6.3	613	7.5	735	9.4	919	9.9	10	980		
D64.../20/032			32	72.2	66.7	8	581	9.6	697	12	871	12.6	13	994		
D64.../20/038			38	56	56.1	9.5	532	11.4	638	14.3	798	15	16	896		
D64.../20/044			44	47.5	48.5	11	523	13.2	627	16.5	784	17.4	19	903		
D64.../20/051			51	41.7	41.8	12.8	532	15.3	638	19.1	798	20.1	21	876		
D64.../20/064			64	32.3	33.3	16	517	19.2	620	24	775	25.3	28	904		
D64.../20/076			76	25.1	28.1	19	477	22.8	572	28.5	715	30	33	828		
D64.../20/089			89	22	24	22.3	490	26.7	587	33.4	734	35.2	41	902		
D64.../20/102			102	19.8	20.9	25.5	505	30.6	606	38.3	757	40.3	48	950		
D64.../20/115			115	18.1	18.6	28.8	520	34.5	624	43.1	781	45.4	55	996		
D64.../20/127			127	16.6	16.8	31.8	527	38.1	632	47.6	791	50.2	61	1013		
D64.../20/139			139	15.1	15.3	34.8	525	41.7	634	52.1	787	54.9	67	1012		
D64.../20/152			152	13.2	14	38	502	45.6	600	57	752	60	74	997		
D64JB/20/178	178	-	12	44.5	-	53.4	-	66.8	-	70.3	-	-	-			
D64JB/20/203	203	-	10	50.8	-	60.9	-	76.1	-	80.2	-	-	-			
D64.../20/305	305	6.1	7	76.3	465	91.5	558	114.4	698	120.5	146	891				
D64.../25/025	25	12.5	25	147	128	6.3	919	7.5	1103	9.4	1378	9.9	11	1617		
D64.../25/032			32	118	100	8	944	9.6	1133	12	1416	12.6	13	1534		
D64.../25/038			38	93	84.2	9.5	884	11.4	1060	14.3	1325	15	18	1674		
D64.../25/044			44	80.8	72.7	11	889	13.2	1067	16.5	1333	17.4	21	1697		
D64.../25/051			51	68.6	62.7	12.8	875	15.3	1050	19.1	1312	20.1	23	1578		
D64.../25/064			64	53	50	16	848	19.2	1018	24	1272	25.3	30	1590		
D64.../25/076			76	43.2	42.1	19	821	22.8	985	28.5	1231	30	35	1512		
D64.../25/089			89	38.2	36	22.3	850	26.7	1020	33.4	1275	35.2	43	1643		
D64.../25/102			102	33	31.4	25.5	842	30.6	1010	38.3	1262	40.3	49	1617		
D64.../25/115			115	28	27.8	28.8	805	34.5	966	43.1	1208	45.4	56	1568		
D64.../25/127			127	25.9	25.2	31.8	822	38.1	987	47.6	1233	50.2	60	1554		
D64.../25/139			139	23.2	23	34.8	806	41.7	974	52.1	1209	54.9	65	1508		
D64.../25/152			152	20.8	21.1	38	790	45.6	948	57	1186	60	71	1477		
D64.../25/178	178	17.8	18	44.5	792	53.4	951	66.8	1188	70.3	85	1513				
D64.../25/203	203	15.8	15.8	50.8	802	60.9	962	76.1	1203	80.2	96	1517				
D64JB/25/229	229	-	14	57.3	-	68.7	-	85.9	-	90.5	-	-	-			
D64.../25/305	305	10.2	10.5	76.3	778	91.5	933	114.4	1167	120.5	150	1530				
D64.../32/038	32	16	38	185	154.4	9.5	1758	11.4	2109	14.3	2636	15	17	3145		
D64.../32/044			44	158	133.3	11	1738	13.2	2086	16.5	2607	17.4	19	3002		
D64.../32/051			51	134	115	12.8	1709	15.3	2050	19.1	2563	20.1	23	3082		
D64.../32/064			64	99	91.7	16	1584	19.2	1901	24	2376	25.3	30	2970		
D64.../32/076			76	80.5	77.2	19	1530	22.8	1835	28.5	2294	30	34	2737		
D64.../32/089			89	69.1	65.9	22.3	1537	26.7	1845	33.4	2306	35.2	42	2902		
D64.../32/102			102	58.8	57.5	25.5	1499	30.6	1799	38.3	2249	40.3	47	2764		
D64.../32/115			115	51.5	51.0	28.8	1481	34.5	1777	43.1	2221	45.4	55	2833		
D64.../32/127			127	44.8	46.2	31.8	1422	38.1	1707	47.6	2134	50.2	61	2733		
D64.../32/139			139	42.3	42.2	34.8	1470	41.7	1777	52.1	2205	54.9	68	2876		
D64.../32/152			152	37.8	38.6	38	1436	45.6	1724	57	2155	60	75	2835		
D64.../32/178			178	32.5	33	44.5	1446	53.4	1736	66.8	2169	70.3	89	2893		
D64.../32/203			203	28.9	28.9	50.8	1467	60.9	1760	76.1	2200	80.2	101	2919		
D64JB/32/229	229	-	25.6	57.3	-	68.7	-	85.9	-	90.5	-	-	-			
D64.../32/254	254	21.4	23.1	63.5	1359	76.2	1631	95.3	2038	100.3	124	2654				
D64.../32/305	305	18.3	19.2	76.3	1395	91.5	1674	114.4	2093	120.5	150	2745				
D64.../40/051	40	20	51	181.6	156.9	12.8	2315	15.3	2778	19.1	3473	15	21	3814		
D64.../40/064			64	140	125	16	2240	19.2	2688	24	3360	17.4	28	3920		
D64.../40/076			76	108	105.3	19	2052	22.8	2462	28.5	3078	20.1	33	3564		
D64.../40/089			89	90.7	89.9	22.3	2018	26.7	2422	33.4	3027	25.3	41	3719		
D64.../40/102			102	81	78.4	25.5	2066	30.6	2479	38.3	3098	30	45	3645		



# HIGH PERFORMANCE COMPRESSION SPRING

Rectangular Wire-Blue Color

DIN/ISO 10243

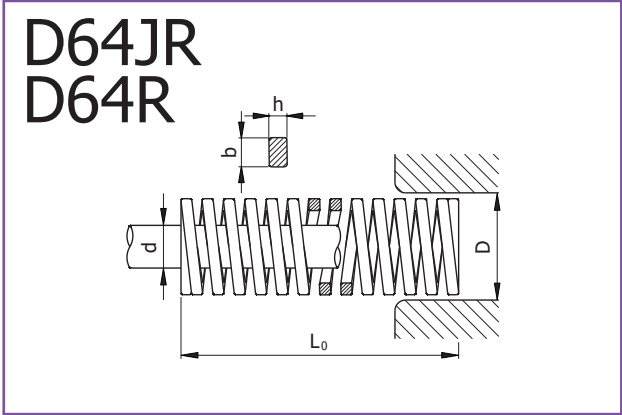
فنر

مقطع مفتول فنر مستطیل - رنگ آبی

کد سفارش Ordering Code	D (b x h)	d	L <sub>0</sub>	D64 (Rate) فنر ±10%	D64J (Rate) فنر ±10%	A 25% دوام 3.000.000 ضرب			B 30% دوام 1.500.000 ضرب			C 37.5% Max. defl بیشترین تغییر طول مجاز دوام 200.000 ضرب			D Approx تغییر طول تقریبی تا بسته شدن		
						mm	N/mm	mm	N	mm	N	mm	N	mm	N	mm	N
D64.../40/115	40	20	115	71.8	69.6	28.8	2064	34.5	2477	43.1	3096	45.4	52	3734			
D64.../40/127			127	62.7	63	31.8	1991	38.1	2389	47.6	2986	52.2	59	3699			
D64.../40/139			139	57.5	57.6	34.8	1998	42	2415	52.1	2997	54.9	66	3795			
D64.../40/152			D64 (8.1 x 4.8)	152	51.6	52.6	38	1961	45.6	2353	57	2941	60	71	3664		
D64.../40/178				178	44.1	44.9	44.5	1962	53.4	2355	66.8	2944	70.3	83	3660		
D64.../40/203			D64J (8.7 x 4.8)	203	36.7	39.4	50.8	1863	60.9	2235	76.1	2794	80.2	94	3450		
D64JB/40/229				229	-	34.9	57.3	-	68.7	-	85.9	-	90.5	-	-		
D64.../40/254				254	30.1	31.5	63.5	1911	76.2	2294	95.3	2867	100.3	114	3431		
D64.../40/305	305	24.6	26.2	76.3	1876	91.5	2251	114.4	2814	120.5	148	3641					
D64.../50/064	50	25	64	209	208.3	16	3344	19.2	4013	24	5016	25.3	30	6270			
D64.../50/076			76	168	175.4	19	3192	22.8	3830	28.5	4788	30	36	6048			
D64.../50/089			D64 (10.9 x 6)	89	140	149.8	22.3	3115	26.7	3738	33.4	4673	35.2	43	6020		
D64.../50/102				102	119	130.7	25.5	3035	30.6	3641	38.3	4552	40.3	48	5712		
D64.../50/115				115	106	115.9	28.8	3048	34.5	3657	43.1	4571	45.4	55	5830		
D64.../50/127				127	97	105	31.8	3080	38.1	3696	47.6	4620	50.2	63	6111		
D64.../50/139			D64J (12 x 5.8)	139	87	95.9	34.8	3023	42	3654	52.1	4535	54.9	66	5742		
D64.../50/152				152	80	87.7	38	3040	45.6	3648	57	4560	60	72	5760		
D64.../50/178				178	69.5	74.9	44.5	3093	53.4	3711	66.8	4639	70.3	85	5908		
D64.../50/203				203	59.8	65.7	50.8	3035	60.9	3642	76.1	4552	80.2	95	5681		
D64.../50/229				229	50.9	58.2	57.3	2914	68.7	3497	85.9	4371	90.5	114	5803		
D64.../50/254				254	43.9	52.5	63.5	2788	76.2	3345	95.3	4118	100.3	125	5488		
D64.../50/305				305	38.6	43.7	76.3	2943	91.5	3532	114.4	4415	120.5	150	5790		
D64.../63/076				63	38	76	312	197.4	19	5928	22.8	7114	28.5	8892	30	30	9360
D64.../63/089			89			260	168.5	22.3	5785	26.7	6942	33.4	8678	35.2	38	9880	
D64.../63/102			102			221	147.1	25.5	5636	30.6	6763	38.3	8453	40.3	43	9503	
D64.../63/115	D64 (11.5 x 9.3)	115	187			130.4	28.8	5376	34.5	6452	43.1	8064	45.4	50	9350		
D64.../63/127		127	168			118.1	31.8	5334	38.1	6401	47.6	8001	50.2	52	8736		
D64.../63/152		152	136			98.7	38	5168	45.6	6202	57	7752	60	67	9112		
D64.../63/178		178	114			84.3	44.5	5073	53.4	6088	66.8	7610	70.3	78	8892		
D64.../63/203	D64J (12 x 9.1)	203	100			73.9	50.8	5075	60.9	6090	76.1	7613	80.2	88	8800		
D64JB/63/229		229	-			65.5	57.3	-	68.7	-	85.9	-	90.5	-	-		
D64.../63/254		254	78.4			59.1	63.5	4978	76.2	5974	95.3	7468	100.3	115	9016		
D64.../63/305		305	64.7			49.2	76.3	4933	91.5	5920	114.4	7400	120.5	134	8670		

**HIGH PERFORMANCE COMPRESSION SPRING**  
 Rectangular Wire-Red Color  
 DIN/ISO 10243

فنر  
 مقطع مفتول فنر مستطیل - رنگ قرمز



کد سفارش Ordering Code	D d (b x h)		L <sub>0</sub>	D64 (Rate) فنر ±10%		D64J (Rate) فنر ±10%		A 20% دوام 3.000.000 شرب		B 25% دوام 1.500.000 شرب		C 30%Max. defl بیشترین تغییر طول مجاز دوام 200.000 شرب		D Approx تغییر طول تقریبی تا بسته شدن																			
	mm	mm		N/mm	N/mm	mm	N		mm	N		mm	N		mm		N																
							D64	D64J		D64	D64J		D64	D64J	D64J	D64		D64															
D64.../10/025	10	5	25	22.1	26.7	5	111	6.3	139	7.5	166	8	9	199	10.2	12	210																
D64.../10/032																		32	17.5	20.8	6.4	112	8	140	9.6	168	11.4	195	12.2	15	257		
D64.../10/038																		38	17.1	17.5	7.6	130	9.5	162	11.4	195	12.2	15	257	14.1	17	255	
D64.../10/044																		44	15	15.2	8.8	132	11	165	13.2	198	14.1	17	255	20.5	26	278	
D64.../10/051																		51	12.8	13.1	10.2	131	12.8	164	15.3	196	16.3	21	269	24.3	31	233	
D64.../10/064																		64	10.7	10.4	12.8	137	16	171	19.2	205	20.5	26	278	28.5	-	-	
D64.../10/076																		76	7.5	8.8	15.2	114	19	143	22.8	171	24.3	31	233	32.6	-	-	
D64JR/10/089																		D64J (2 x 1.5)	89	-	7.5	17.8	-	-	22.3	-	26.7	-	28.5	-	-	-	-
D64JR/10/102																			102	-	6.5	20.4	-	-	25.5	-	30.6	-	32.6	-	-	-	-
D64.../10/305																			305	2.1	2.2	61	128	76.3	160	91.5	192	97.6	122	256	-	-	-
D64.../13/025	12.5	6.3	25	42.1	44	5	211	6.3	265	7.5	316	8	9	379	10.2	13	432																
D64.../13/032																		32	33.2	34.4	6.4	212	8	266	9.6	319	11.4	334	12.2	15	440		
D64.../13/038																		38	29.3	28.9	7.6	223	9.5	278	11.4	334	12.2	15	440	14.1	18	443	
D64.../13/044																		44	24.6	25	8.8	216	11	271	13.2	325	14.1	18	443	20.5	26	390	
D64.../13/051																		51	19.6	21.6	10.2	200	12.8	251	15.3	300	16.3	20	392	24.3	30	396	
D64.../13/064																		64	15	17.2	12.8	192	16	240	19.2	288	20.5	26	390	28.5	35	399	
D64.../13/076																		76	13.2	14.5	15.2	201	19	251	22.8	301	24.3	30	396	32.6	41	385	
D64.../13/089																		D64J (2.3 x 2.1)	89	11.4	12.4	17.8	203	22.3	254	26.7	304	28.5	35	399	36.8	-	-
D64.../13/102																			102	9.4	10.8	20.4	192	25.5	249	30.6	287	32.6	41	385	36.8	-	-
D64JR/13/115																			115	-	9.6	23	-	28.8	-	34.5	-	36.8	-	-	-	-	-
D64.../13/305	305	2.8	3.6	61	171	76.3	214	91.5	256	97.6	123	344	-	-	-																		
D64.../16/025	16	8	25	75.7	80	5	379	6.3	477	7.5	568	8	9	681	10.2	14	739																
D64.../16/032																		32	52.8	62.5	6.4	338	8	422	9.6	507	11.4	553	12.2	17	825		
D64.../16/038																		38	48.5	52.6	7.6	369	9.5	461	11.4	553	12.2	17	825	14.1	20	856	
D64.../16/044																		44	42.8	45.5	8.8	377	11	471	13.2	565	14.1	20	856	16.3	21	779	
D64.../16/051																		51	37.1	39.2	10.2	378	12.8	475	15.3	568	16.3	21	779	20.5	28	848	
D64.../16/064																		64	30.3	31.3	12.8	388	16	485	19.2	582	20.5	28	848	24.3	33	848	
D64.../16/076																		76	25.8	26.3	15.2	391	19	490	22.8	586	24.3	33	848	28.5	39	846	
D64.../16/089																		D64J (3.2 x 2.5)	89	21.7	22.5	17.8	386	22.3	484	26.7	579	28.5	39	846	32.6	44	849
D64.../16/102																			102	19.3	19.6	20.4	394	25.5	492	30.6	561	32.6	44	849	36.8	-	-
D64JR/16/115																			115	-	17.4	23	-	28.8	-	34.5	-	36.8	-	-	-	-	-
D64JR/16/127	127	-	15.7	25.4	-	31.8	-	38.1	-	40.6	-	-	-	-	-																		
D64.../16/305	305	7.1	6.6	61	433	76.3	542	91.5	650	97.6	127	902	-	-	-																		

**HIGH PERFORMANCE COMPRESSION SPRING**  
 Rectangular Wire-Red Color  
 DIN/ISO 10243

فندر  
 مقطع مفتول فنر مستطیل - رنگ قرمز

کد سفارش Ordering Code	D d (b x h)		L <sub>0</sub>	D64 (Rate) فندر ±10%		A 20% دوام 3.000.000 فنر		B 25% دوام 1.500.000 فنر			C 30% Max. defl بیشترین تغییر طول مجاز دوام 200.000 فنر			D Approx تغییر طول تقریبی تا بسته شدن		
	mm	mm		N/mm	N/mm	mm	N		mm	N		mm	N		mm	N
						D64	D64J	D64	D64J	D64	D64J	D64	D64J	D64J	D64	D64
D64.../20/025	20	10	25	216	160	5	1080	6.3	1361	7.5	1620	8	9	1944		
D64.../20/032			32	168	125	6.4	1075	8	1344	9.6	1613	10.2	11	1848		
D64.../20/038			38	129	105.3	7.6	980	9.5	1226	11.4	1471	12.2	13	1677		
D64.../20/044			44	112	90.9	8.8	986	11	1232	13.2	1478	14.1	16	1792		
D64.../20/051			51	94	78.4	10.2	959	12.8	1203	15.3	1438	16.3	20	1880		
D64.../20/064			64	72.1	62.5	12.8	923	16	1154	19.2	1384	20.5	25	1803		
D64.../20/076			76	59.7	52.6	15.2	907	19	1134	22.8	1361	24.3	29	1731		
D64.../20/089			89	50.5	44.9	17.8	899	22.3	1126	26.7	1348	28.5	35	1768		
D64.../20/102			102	44.2	39.2	20.4	902	25.5	1127	30.6	1353	32.6	40	1768		
D64.../20/115			115	38.4	34.8	23	883	28.8	1106	34.5	1325	36.8	47	1805		
D64.../20/127			127	34.1	31.5	25.4	866	31.8	1084	38.1	1299	40.6	52	1773		
D64.../20/139			139	31	28.8	27.8	862	34.8	1085	41.7	1293	44.5	57	1767		
D64.../20/152			152	28.2	26.3	30.4	857	38	1072	45.6	1286	48.6	62	1748		
D64JR/20/178			178	-	22.5	35.6	-	44.5	-	53.4	-	57	-	-		
D64JR/20/203			203	-	19.7	40.6	-	50.8	-	60.9	-	65	-	-		
D64.../20/305			305	15	13.1	61	915	76.3	1145	91.5	1373	97.6	121	1815		
D64.../25/025	25	12.5	25	375	266.7	5	1875	6.3	2363	7.5	2813	8	9	3375		
D64.../25/032			32	297	208.3	6.4	1901	8	2376	9.6	2851	10.2	11	3267		
D64.../25/038			38	219	175.4	7.6	1664	9.5	2081	11.4	2497	12.2	14	3066		
D64.../25/044			44	187	151.5	8.8	1646	11	2057	13.2	2468	14.1	16	2992		
D64.../25/051			51	156	130.7	10.2	1591	12.8	1997	15.3	2387	16.3	19	2964		
D64.../25/064			64	123	104.2	12.8	1574	16	1968	19.2	2362	20.5	26	3198		
D64.../25/076			76	99	87.7	15.2	1505	19	1881	22.8	2257	24.3	29	2871		
D64.../25/089			89	84	74.9	17.8	1495	22.3	1873	26.7	2243	28.5	35	2940		
D64.../25/102			102	73	65.4	20.4	1489	25.5	1862	30.6	2234	32.6	39	2847		
D64.../25/115			115	65	58.0	23	1495	28.8	1872	34.5	2243	36.8	45	2925		
D64.../25/127			127	57.7	52.5	25.4	1466	31.8	1835	38.1	2198	40.6	48	2770		
D64.../25/139			139	52.7	48.0	27.8	1465	34.8	1845	41.7	2198	44.5	54	2846		
D64.../25/152			152	47.8	43.9	30.4	1453	38	1816	45.6	2180	48.6	60	2868		
D64.../25/178			178	41	37.5	35.6	1460	44.5	1825	53.4	2189	57	67	2747		
D64.../25/203			203	35.8	32.8	40.6	1453	50.8	1819	60.9	2180	65	80	2864		
D64JR/25/229			229	-	29.1	45.8	-	57.3	-	68.7	-	73.3	-	-		
D64.../25/305	305	22.9	21.9	61	1397	76.3	1747	91.5	2095	97.6	119	2725				
D64.../32/038	32	16	38	388	298.2	7.6	2949	9.5	3686	11.4	4423	12.2	13	5044		
D64.../32/044			44	324	257.6	8.8	2851	11	3564	13.2	4277	14.1	16	5184		
D64.../32/051			51	272	222.2	10.2	2774	12.8	3482	15.3	4162	16.3	18	4896		
D64.../32/064			64	212	177.1	12.8	2714	16	3392	19.2	4070	20.5	23	4876		
D64.../32/076			76	172	149.1	15.2	2614	19	3268	22.8	3922	24.3	27	4644		
D64.../32/089			89	141	127.3	17.8	2510	22.3	3144	26.7	3765	28.5	33	4653		
D64.../32/102			102	122	111.1	20.4	2489	25.5	3111	30.6	3733	32.6	39	4758		
D64.../32/115			115	107	98.6	23	2461	28.8	3082	34.5	3692	36.8	43	4601		
D64.../32/127			127	93	89.2	25.4	2362	31.8	2957	38.1	3543	40.6	47	4371		
D64.../32/139			139	86	81.5	27.8	2391	34.8	3010	41.7	3586	44.5	51	4386		
D64.../32/152			152	78	74.6	30.4	2371	38	2964	45.6	3557	48.6	55	4290		
D64.../32/178			178	67.2	63.7	35.6	2392	44.5	2990	53.4	3588	57.0	69	4637		
D64.../32/203			203	59.1	55.8	40.6	2399	50.8	3002	60.9	3599	65.0	81	4787		
D64JR/32/229			229	-	49.5	45.8	-	57.3	-	68.7	-	73.3	-	-		
D64.../32/254			254	46.4	44.6	50.8	2357	63.5	2946	76.2	3536	81.3	99	4594		
D64.../32/305			305	38	37.2	61	2318	76.3	2899	91.5	3477	97.6	119	4522		
D64.../40/051	40	20	51	350	326.8	10.2	3570	12.8	4480	15.3	5355	16.3	18	6300		
D64.../40/064			D64	64	269	260.4	12.8	3443	16	4304	19.2	5165	20.5	25	6725	
D64.../40/076			D64	76	219	219.3	15.2	3329	19	4161	22.8	4993	24.3	30	6570	
D64.../40/089			D64J	89	190	187.3	17.8	3382	22.3	4237	26.7	5073	28.5	36	6840	
D64.../40/102			D64J	102	163	163.4	20.4	3325	25.5	4157	30.6	4988	32.6	41	6683	

# HIGH PERFORMANCE COMPRESSION SPRING

Rectangular Wire-Red Color

DIN/ISO 10243

فنر

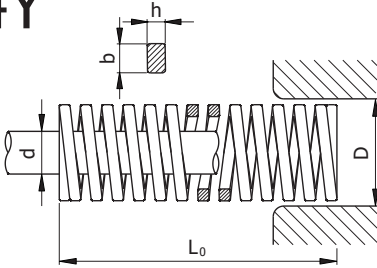
مقطع مفتول فنر مستطیل - رنگ قرمز

کد سفارش Ordering Code	D d (b x h)		L <sub>0</sub>	D64 (Rate) فنر ±10%	D64J (Rate) فنر ±10%	A 20% دوام 3.000.000 ضرب		B 25% دوام 1.500.000 ضرب		C 30% Max. def بیشترین تغییر طول مجاز دوام 200.000 ضرب		D Approx تغییر طول تقریبی تا بسته شدن					
	mm	mm		N/mm	N/mm	mm	N		mm	N		mm	mm		N		
			D64				D64J	D64		D64J	D64J		D64	D64			
D64.../40/115	40	20	115	142	144.9	23	3266	28.8	4090	34.5	4899	36.8	47	6674			
D64.../40/127			127	128	131.2	25.4	3251	31.8	4070	38.1	4877	40.6	53	6784			
D64.../40/139			139	115	119.9	27.8	3197	34.8	4025	41.7	4796	44.5	56	6440			
D64.../40/152			D64 (8.4 x 6.2)	152	105	109.6	30.4	3192	38	3990	45.6	4788	48.6	62	6510		
D64.../40/178				178	89	93.6	35.6	3168	44.5	3961	53.4	4753	57	70	6230		
D64.../40/203			203	77	82.1	40.6	3126	50.8	3912	60.9	4689	65	83	6391			
D64JR/40/229			D64J (8.7 x 6.3)	229	-	72.8	45.8	-	57.3	-	68.7	-	73.3	-	-		
D64.../40/254				254	61	65.6	50.8	3099	63.5	3874	76.2	4648	81.3	101	6161		
D64.../40/305	305	51		54.6	61	3111	76.3	3891	91.5	4667	97.6	127	6477				
D64.../50/064	50	25	64	413	390.6	12.8	5286	16	6608	19.2	7930	20.5	26	10738			
D64.../50/076			76	339	328.9	15.2	5153	19	6441	22.8	7729	24.3	29	9831			
D64.../50/089			89	288	280.9	17.8	5126	22.3	6422	26.7	7690	28.5	35	10080			
D64.../50/102			102	245	245.1	20.4	4998	25.5	6248	30.6	7497	32.6	41	10045			
D64.../50/115			D64 (11.3 x 7.4)	115	215	217.4	23	4945	28.8	6192	34.5	7418	36.8	47	10105		
D64.../50/127				127	192	196.9	25.4	4877	31.8	6109	38.1	7315	40.6	55	10560		
D64.../50/139				139	168	179.9	27.8	4670	34.8	5880	41.7	7006	44.5	61	10248		
D64.../50/152				152	154	164.5	30.4	7682	38	5852	45.6	7022	48.6	66	10164		
D64.../50/178			D64J (12.2 x 7.5)	178	134	140.4	35.6	4770	44.5	5963	53.4	7156	57	75	10050		
D64.../50/203				203	117	123.2	40.6	4750	50.8	5944	60.9	7125	65	87	10179		
D64JR/50/229				229	-	109.2	45.8	-	57.3	-	68.7	-	73.3	-	-		
D64.../50/254				254	89	98.4	50.8	4521	63.5	5652	76.2	6782	81.3	108	9612		
D64.../50/305				305	73	82	61	4453	76.3	5570	91.5	6680	97.6	133	9709		
D64.../63/076				63	38	76	630	526.3	15.2	9576	19	11970	22.8	14364	24.3	24	15120
D64.../63/089						89	485	449.4	17.8	8633	22.3	10815	26.7	12920	28.5	32	15520
D64.../63/102						102	434	392.2	20.4	8854	25.5	11067	30.6	13280	32.6	36	15624
D64.../63/115	D64 (12.5 x 11)	115	484			347.8	23	8832	28.8	11059	34.5	13248	36.8	40	15360		
D64.../63/127		127	349			315	25.4	8865	31.8	11098	38.1	13297	40.6	44	15356		
D64.../63/152		152	276			263.2	30.4	8390	38	10488	45.6	12586	48.6	56	15456		
D64.../63/178		178	237			224.7	35.6	8437	44.5	10546	53.4	12656	57	65	15405		
D64.../63/203	203	210	197			40.6	8526	50.8	10668	60.9	12789	65	74	15540			
D64JR/63/229	D64J (12 x 11.5)	229	-			174.7	57.3	-	57.3	-	68.7	-	73.3	-	-		
D64.../63/254		254	165			157.5	50.8	8382	63.5	10477	76.2	12573	81.3	94	15510		
D64.../63/305		305	134			131.1	61	8174	76.3	10224	91.5	12261	97.6	115	15410		

**HIGH PERFORMANCE COMPRESSION SPRING**  
 Rectangular Wire-Yellow Color  
 DIN/ISO 10243

فنر  
 مقطع مفتول فنر مستطیل - رنگ زرد

**D64JY**  
**D64Y**



Yellow  
 زرد



کد سفارش Ordering Code	D d (b x h)		L <sub>0</sub>	D64 (Rate) فنر ±10%		D64J (Rate) فنر ±10%		A 17% دوام 3.000.000 شرب		B 20% دوام 1.500.000 شرب		C 25%Max. defl بیشترین تغییر طول مجاز دوام 200.000 شرب		D Approx تغییر طول تقریبی تا بسته شدن			
	mm	mm		N/mm	N/mm	mm	N		mm	N		mm	N		mm		N
							D64	D64J		D64	D64J		D64	D64J	D64J	D64	
D64.../10/025	10	5	25	36.8	36.8	4.3	156	5	184	6.3	230	6.8	9	331			
D64.../10/032			32	27.9	28.8	5.4	152	6.4	179	8	223	8.6	12	335			
D64.../10/038			38	23.7	24.2	6.5	153	7.6	180	9.5	225	10.3	14	332			
D64.../10/044			44	19.2	20.9	7.5	144	8.8	169	11	211	11.9	17	326			
D64.../10/051			51	16.5	18	8.7	143	10.2	168	12.8	210	13.8	19	314			
D64.../10/064			64	13.2	14.4	10.9	144	12.8	169	16	211	17.3	23	304			
D64.../10/076			76	10.9	12.1	12.9	141	15.2	166	19	207	20.5	30	327			
D64JY/10/089			89	-	10.3	15.1	-	17.8	-	22.3	-	24	-	-			
D64JY/10/102			102	-	9	17.3	-	20.4	-	25.5	-	27.5	-	-			
D64.../10/305			305	2.6	3	51.9	135	61	159	76.3	198	82.4	117	304			
D64.../13/025	12.5	6.3	25	58.5	57.6	4.3	249	5	293	6.3	366	6.8	9	527			
D64.../13/032			32	43.9	45	5.4	239	6.4	281	8	351	8.6	12	527			
D64.../13/038			38	36	37.9	6.5	233	7.6	274	9.5	342	10.3	14	504			
D64.../13/044			44	30.3	32.7	7.5	227	8.8	267	11	333	11.9	18	545			
D64.../13/051			51	26.2	28.2	8.7	227	10.2	267	12.8	334	13.8	20	524			
D64.../13/064			64	21.2	22.5	10.9	231	12.8	271	16	339	17.3	27	572			
D64.../13/076			76	17.1	18.9	12.9	221	15.2	260	19	325	20.5	32	547			
D64.../13/089			89	14.5	16.2	15.1	219	17.8	258	22.3	323	24	38	551			
D64.../13/102			102	12.5	14.1	17.3	216	20.4	255	25.5	319	27.5	41	513			
D64JY/13/115			115	-	12.5	19.6	-	23	-	28.8	-	31.1	-	-			
D64.../13/305	305	4.3	4.7	51.9	223	61	262	76.3	328	82.4	115	495					
D64.../16/025	16	8	25	118	112	4.3	502	5	590	6.3	738	6.8	10	1180			
D64.../16/032			32	89	87.5	5.4	484	6.4	570	8	712	8.6	12	1068			
D64.../16/038			38	72.1	73.7	6.5	466	7.6	548	9.5	685	10.3	14	1009			
D64.../16/044			44	60.9	63.6	7.5	456	8.8	536	11	670	11.9	17	1035			
D64.../16/051			51	52.3	54.9	8.7	453	10.2	533	12.8	667	13.8	19	994			
D64.../16/064			64	41.2	43.8	10.9	448	12.8	527	16	659	17.3	25	1030			
D64.../16/076			76	34.1	36.8	12.9	441	15.2	518	19	648	20.5	29	989			
D64.../16/089			89	29.5	31.5	15.1	446	17.8	525	22.3	656	24	36	1062			
D64.../16/102			102	25.6	27.5	17.3	444	20.4	522	25.5	653	27.5	38	973			
D64JY/16/115			115	-	24.3	19.6	-	23	-	28.8	-	31.1	-	-			
D64JY/16/127	127	-	22	21.6	-	25.4	-	31.8	-	34.3	-	-					
D64.../16/305	305	8.4	9.2	51.9	436	61	512	76.3	641	82.4	120	1008					



# HIGH PERFORMANCE COMPRESSION SPRING

Rectangular Wire-Yellow Color

DIN/ISO 10243

فنر

مقطع مفتول فنر مستطیل - رنگ زرد

کد سفارش Ordering Code	D d (b x h)		L <sub>0</sub>	D64 (Rate) فنر ±10%		A 17% دوام 3.000.000 فنر		B 20% دوام 1.500.000 فنر				C 25% Max. defl بیشترین تغییر طول مجاز دوام 200.000 فنر				D Approx تغییر طول تقریبی تا بسته شدن		
	mm	mm		N/mm	N/mm	mm	N		mm	N		mm	N		mm			
							D64	D64J		D64	D64J		D64	D64J	D64J	D64	D64	D64
D64.../20/025	20	10	25	293	240	4.3	1245	5	1465	6.3	1831	6.8	7	2051				
D64.../20/032			32	224	187.5	5.4	1219	6.4	1434	8	1792	8.6	10	2240				
D64.../20/038			38	177	157.9	6.5	1143	7.6	1345	9.5	1682	10.3	12	2124				
D64.../20/044			44	149	136.4	7.5	1115	8.8	1311	11	1639	11.9	14	2086				
D64.../20/051			51	128	117.6	8.7	1110	10.2	1306	12.8	1632	13.8	16	2048				
D64.../20/064			64	99	93.8	10.9	1077	12.8	1267	16	1584	17.3	22	2178				
D64.../20/076			76	81.7	78.9	12.9	1056	15.2	1242	19	1552	20.5	25	2043				
D64.../20/089			89	69.5	67.4	15.1	1052	17.8	1237	22.3	1546	24	31	2155				
D64.../20/102			102	60.6	58.8	17.3	1051	20.4	1236	25.5	1545	27.5	36	2182				
D64.../20/115			115	53	52.2	19.6	1036	23	1219	28.8	1524	31.1	42	2226				
D64.../20/127			127	47.5	47.2	21.6	1026	25.4	1207	31.8	1508	34.3	43	2043				
D64.../20/139			139	43	43.2	23.6	1016	27.8	1204	34.8	1494	37.5	48	2064				
D64JY/20/178			178	-	33.7	30.3	-	35.6	-	44.5	-	48.1	-	-				
D64JY/20/203			203	-	29.6	34.5	-	40.6	-	50.8	-	54.8	-	-				
D64.../20/305			305	21.2	19.7	51.9	1099	61	1293	76.3	1617	82.4	105	2226				
D64.../25/025	25	12.5	25	459	-	4.3	1974	5	2295	6.3	2892	-	7.3	3351				
D64.../25/032			32	374.4	312.5	5.4	2037	6.4	2396	8	2995	8.6	11	4118				
D64.../25/038			38	346	263.2	6.5	2235	7.6	2630	9.5	3287	10.3	13	4498				
D64.../25/044			44	244	227.3	7.5	1825	8.8	2147	11	2684	11.9	16	3904				
D64.../25/051			51	207.5	196.1	8.7	1799	10.2	2111	12.8	2646	13.8	18	3735				
D64.../25/064			64	161	156.3	10.9	1752	12.8	2061	16	2576	17.3	23	3703				
D64.../25/076			76	130.8	131.6	12.9	1690	15.2	1988	19	2485	20.5	26	3401				
D64.../25/089			89	110.5	112.4	15.1	1672	17.8	1967	22.3	2459	24	31	3426				
D64.../25/102			102	96.3	98	17.3	1670	20.4	1965	25.5	2456	27.5	36	3467				
D64.../25/115			115	85.7	87	19.6	1675	23	1917	28.8	2464	31.1	41	3514				
D64.../25/127			127	76.3	78.7	21.6	1647	25.4	1938	31.8	2423	34.3	47	3586				
D64JY/25/139			139	-	71.9	23.6	-	27.8	-	34.8	-	37.5	-	-				
D64.../25/152			152	63.5	65.8	25.8	1641	30.4	1930	38	2413	41	54	3429				
D64.../25/178			178	53.9	56.2	30.3	1631	35.6	1919	44.5	2399	48.1	63	3396				
D64.../25/203			203	47	49.3	34.5	1622	40.6	1908	50.8	2385	54.8	72	3384				
D64JY/25/229	229	-	43.7	38.9	-	45.8	-	57.3	-	61.8	-	-						
D64.../25/305	305	30.9	32.8	51.9	1602	61	1885	76.3	2356	82.4	113	3492						
D64.../32/038	32	16	38	528.2	421.1	6.5	3412	7.6	4014	9.5	5018	10.3	12	6338				
D64.../32/044			44	424.4	363.6	7.5	3175	8.8	3735	11	4668	11.9	15	6366				
D64.../32/051			51	353	313.7	8.7	3061	10.2	3601	12.8	4501	13.8	17	6001				
D64.../32/064			64	269.2	250	10.9	2929	12.8	3446	16	4307	17.3	22	5922				
D64.../32/076			76	218.5	210.5	12.9	2823	15.2	3321	19	4152	20.5	25	5436				
D64.../32/089			89	180.3	179.8	15.1	2728	17.8	3209	22.3	4012	24	33	5950				
D64.../32/102			102	155	156.9	17.3	2688	20.4	3162	25.5	3953	27.5	36	5580				
D64.../32/115			115	140	139.1	19.6	2737	23	3220	28.8	4025	31.1	42	5880				
D64.../32/127			127	124	126	21.6	2677	25.4	3150	31.8	3937	34.3	46	5704				
D64JY/32/139			139	-	115.1	23.6	-	27.8	-	34.8	-	37.5	-	-				
D64.../32/152			152	102	105.3	25.8	2636	30.4	3101	38	3876	41	56	5712				
D64.../32/178			178	88.2	89.9	30.3	3669	35.6	3140	44.5	3925	48.1	64	5645				
D64.../32/203			203	76	78.8	34.5	2623	40.6	3086	50.8	3857	54.8	71	5396				
D64JY/32/229			229	-	69.9	38.9	-	45.8	-	57.3	-	61.8	-	-				
D64.../32/254			254	60.8	63	43.2	2625	50.8	3089	63.5	3861	68.6	90	5472				
D64.../32/305	305	49	52.5	51.9	2541	61	2989	76.3	3736	82.4	103	5047						
D64.../40/051	40	20	51	628	509.8	8.7	2445	10.2	6406	12.8	8007	13.8	17	10676				
D64.../40/064			D64	64	487	406.3	10.9	5299	12.8	6234	16	7792	17.3	23	11201			
D64.../40/076			D64	76	379	342.1	12.9	4897	15.2	5761	19	7201	20.5	31	10233			
D64.../40/089			D64J	89	321	292.1	15.1	4857	17.8	5714	22.3	7142	24	36	9951			
D64.../40/102			D64J	102	281	254.9	17.3	4873	20.4	5732	25.5	7166	27.5	40	10116			

**HIGH PERFORMANCE COMPRESSION SPRING**  
 Rectangular Wire-Yellow Color  
 DIN/ISO 10243

فنر  
 مقطع مفتول فنر مستطیل - رنگ زرد

کد سفارش Ordering Code	D (b x h)	d	L <sub>0</sub>	D64 (Rate) فنر ±10%		D64J (Rate) فنر ±10%		A 17% دوام 3,000,000 غروب 		B 20% دوام 1,500,000 غروب 		C 25% Max. defl بیشترین تغییر طول مجاز دوام 200,000 غروب 		D Approx تغییر طول تقریبی تا بسته شدن 								
				mm	mm	mm	N/mm	N/mm	mm	N		mm	N		mm	N		mm	N			
										D64	D64J		D64	D64J		D64J	D64			D64		
D64.../40/115	40	20	115	245	226.1	19.6	4790	4420	23	5635	5200	28.8	7044	6500	31.1	40	9800					
D64.../40/127			127	221	204.7	21.6	4771		25.4	5613		31.8	7017		34.3	44	9724					
D64.../40/139			139	202	187.1	23.6	4773		27.8	5615		34.8	7020		37.5	52	10504					
D64.../40/152			D64 (8.7 x 7.3)	152	168	171.1	25.8		4341	30.4		5107	38		6348	41	56	9408				
D64.../40/178				178	148	146.1	30.3		4478	35.6		5268	44.5		6586	48.1	61	9028				
D64.../40/203				203	132	128.1	34.5		4555	40.6		5359	50.8		6699	54.8	73	9636				
D64JY/40/229			D64J (8.7 x 7.5)	229	-	113.5	38.9		-	45.8		-	57.3		-	61.8	-	-				
D64.../40/254				254	107	102.4	43.2		4620	50.8		5436	63.5		6795	68.6	93	9951				
D64.../40/305				305	87	85.2	51.9		4552	61		5356	76.3		6695	82.4	106	9307				
D64.../50/064	50	25	64	709	625	10.9	7714	6800	12.8	9075	8000	16	11344	10000	17.3	21	14889					
D64.../50/076			76	572	526.3	12.9	7390		15.2	8694		19	10868		20.5	25	14300					
D64.../50/089			89	475	449.4	15.1	7187		17.8	8455		22.3	10569		24	28	13300					
D64.../50/102			D64 (11.4 x 9.1)	102	405	392.2	17.3		7023	20.4		8262	25.5		10328	27.5	33	13365				
D64.../50/115				115	352	347.8	19.6		6882	23		8096	28.8		10120	31.1	38	13376				
D64.../50/127				127	316	315	21.6		6822	25.4		8026	31.8		10033	34.3	43	13588				
D64.../50/139			D64J (12.1 x 8.8)	139	289	287.8	23.6		6829	27.8		8092	34.8		10043	37.5	47	13583				
D64.../50/152				152	239	263.2	25.8		6176	30.4		7266	38		9082	41	53	12667				
D64.../50/178				178	216	224.7	30.3		6536	35.6		7689	44.5		9612	48.1	60	12960				
D64.../50/203			D64J (12.1 x 8.8)	203	187	197	34.5		6453	40.6		7592	50.8		9490	54.8	71	13277				
D64JY/50/229				229	-	174.7	38.9		-	45.8		-	57.3		-	61.8	-	-				
D64.../50/254				254	153	157.5	43.2		6607	50.8		7772	63.5		9716	68.6	91	13923				
D64.../50/305			305	127	131.1	51.9	6585		61	7747		76.3	9684		82.4	106	13462					
D64.../63/076			63	38	76	842	842.1		12.9	10879		8000	15.2		12798	10000	19	15998	12000	18.6	24	20208
D64.../63/089					89	726	719.1		15.1	10984			17.8		12923		22.3	16154		21.8	28	20328
D64.../63/102	102	656			627.5	17.3	11375	20.4	13382	25.5	16728		27.5	31	20336							
D64.../63/115	D64 (13.3 x 11.8)	115			534	556.5	19.6	10440	23	12282	28.8		15353	31.1	38		20292					
D64.../63/127		127			480	503.9	21.6	10363	25.4	12192	31.8		15240	34.3	42		20160					
D64.../63/152		152			396	421.1	25.8	10233	30.4	12038	38		15048	41	51		20196					
D64.../63/178	D64J (13.3 x 11.8)	178			335	359.6	30.3	10137	35.6	11926	44.5		14908	48.1	60		20100					
D64.../63/203		203			297	315.3	34.5	10249	40.6	12058	50.8		15073	54.8	68		20196					
D64JY/63/229		229			-	279.5	38.9	-	45.8	-	57.3		-	61.8	-		-					
D64.../63/254	D64J (12 x 13.7)	254			235	252.0	43.2	10147	50.8	11938	63.5		14923	68.6	85		19975					
D64.../63/305		305			194	209.8	51.9	10059	61	11834	76.3		14793	82.4	103		19982					

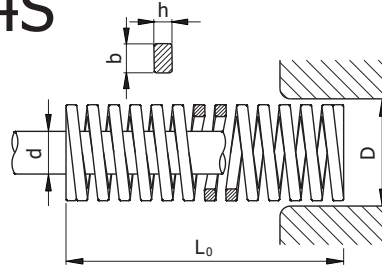
**HIGH PERFORMANCE COMPRESSION SPRING**

Rectangular Wire-Brown/Silver Color  
DIN/ISO 10243

فنر  
مقطع مفتول فنر مستطیل - رنگ قهوه ای / نقره ای



D64W  
D64S



کد سفارش Ordering Code	D (b x h)	d	L <sub>0</sub>	R (Rate) ضریب فنر ±10%	A 10% دوام 3.000.000 ضرب		B 12.5% دوام 1.500.000 ضرب		C 15% Max Defl دوام 200.000 ضرب		D Approx تعییر طول تقریبی تا بسته شدن	
					mm	mm	mm	N/mm	mm	N	mm	N
D64W/16/032	16	8	32	449	3.2	1437	4	1796	4.8	2155	6	2694
D64W/16/038			38	363	3.8	1379	4.8	1742	5.7	2069	7	2541
D64W/16/044			44	309	4.4	1360	5.5	1700	6.6	2039	8	2472
D64W/16/051			51	256	5.1	1306	6.4	1632	7.7	1958	9	2304
D64W/16/064			64	203	6.4	1299	8	1624	9.6	1949	11	2233
D64W/16/076			76	166	7.6	1262	9.5	1577	11.4	1892	14	2324
D64W/16/089			89	139	8.9	1237	11.1	1546	13.4	1856	16	2224
D64W/16/102			102	114	10.2	1163	12.8	1454	15.3	1744	19	2166
D64W/16/115			115	105	11.5	1208	14.4	1509	17.3	1811	22	2310
D64W/16/127			127	94	12.7	1194	15.9	1492	19.1	1791	25	2350
D64W/16/152	152	69	15.2	1049	19	1311	22.8	1573	34	2346		
D64W/16/305	305	37	30.5	1129	38.1	1411	45.8	1693	70	2590		
D64W/20/044	20	10	44	452	4.4	1989	5.5	2486	6.6	2983	8	3616
D64W/20/051			51	378	5.1	1928	6.4	2410	7.7	2892	10	3780
D64W/20/064			64	301	6.4	1926	8	2408	9.6	2890	13	3913
D64W/20/076			76	247	7.6	1877	9.5	2347	11.4	2816	16	3952
D64W/20/089			89	208	8.9	1851	11.1	2314	13.4	2777	19	3952
D64W/20/102			102	188	10.2	1918	12.8	2397	15.3	2876	21	3948
D64W/20/115			115	159	11.5	1829	14.4	2286	17.3	2743	24	3816
D64W/20/127			127	146	12.7	1854	15.9	2318	19.1	2781	26	3796
D64W/20/152			152	91	15.2	1383	19	1729	22.5	2075	45	4095
D64W/20/305			305	60	30.5	1830	38.1	2288	45.8	2745	70	4200
D64W/25/044	25	12.5	44	1158	4.4	5095	5.5	6369	6.6	7643	8	9264
D64W/25/051			51	933	5.1	4758	6.4	5948	7.6	7091	10	9330
D64.../25/064			64	644	6.4	4672	8	5840	9.6	7008	13	9490
D64.../25/076			76	556	7.6	4226	9.5	5282	11.4	6338	16	8896
D64.../25/089			89	462	8.9	4112	11.1	5140	13.4	6168	20	9240
D64.../25/102			102	390	10.2	3978	12.8	4973	15.3	5967	23	8970
D64.../25/115			115	360	11.5	4140	14.4	5175	17.3	6210	26	9360
D64.../25/127			127	326	12.7	4140	15.9	5175	19.1	6210	28	9128
D64.../25/152			152	255	15.2	3876	19	4845	22.8	5814	34	8670
D64.../25/178			178	230	17.8	4094	22.3	5118	26.7	6141	39	8970
D64.../25/203	203	202	20.3	4101	25.4	5126	30.5	6151	45	9090		
D64.../25/305	305	136	30.5	4148	38.1	5185	45.8	6222	63	8568		

## HIGH PERFORMANCE COMPRESSION SPRING

Rectangular Wire-Brown/Silver Color

DIN/ISO 10243

فنر

مقطع مفتول فنر مستطیل - رنگ قهوه ای / نقره ای

کد سفارش Ordering Code	D (b x h)	d	L <sub>0</sub>	R (Rate) ضریب فنر ±10%	A 10% دوام 3.000.000 ضرب		B 12.5% دوام 1.500.000 ضرب		C 15% Max Defl دوام 200.000 ضرب		D Approx تخمین طول تقریبی تا بسته شدن	
									mm	N	mm	N
D64W/32/044	32	16	44	1300	4.4	5720	5.5	7150	6.6	8580	8	10400
D64W/32/051			51	1150	5.1	5865	6.4	7331	7.6	8740	11	12650
D64.../32/064			64	887	6.4	5677	8	7096	9.6	8515	14	12418
D64.../32/076			76	733	7.6	5570	9.5	6964	11.4	8356	17	12460
D64.../32/089			89	612	8.9	5447	11.1	6808	13.4	8171	21	12853
D64.../32/102			102	544	10.2	5544	12.8	6936	15.3	8316	23	12502
D64.../32/115			115	494	11.5	5685	14.4	7101	17.3	8527	25	12359
D64.../32/127			127	432	12.7	5490	15.9	6858	19.1	8235	30	12968
D64.../32/152			152	356	15.2	5416	19	6764	22.8	8124	35	12471
D64.../32/178			178	304	17.8	5409	22.3	6764	26.7	8114	41	12459
D64.../32/203			203	265	20.3	5387	25.4	6699	30.5	8080	47	12472
D64.../32/254			254	214	25.4	5436	31.8	6795	38.1	8153	58	12412
D64.../32/305	305	177	30.5	5385	38.1	6748	45.8	8077	70	12359		
D64W/40/064	40	20	64	1228	6.4	7859	8	9824	9.6	11789	13	15964
D64W/40/076			76	1017	7.6	7729	9.5	9662	11.4	11594	16	16272
D64.../40/089			89	880	8.9	7832	11.1	9790	13.4	11748	20	17600
D64.../40/102			102	762	10.2	7772	12.8	9716	15.3	11649	23	17526
D64.../40/115			115	679	12.5	7809	14.4	9761	17.3	11713	26	17654
D64.../40/127			127	622	12.7	7899	15.9	9874	19.1	11849	28	17416
D64.../40/152			152	509	15.2	7737	19	9671	22.8	11605	36	18324
D64.../40/178			178	429	17.8	7636	22.3	9545	26.7	11454	43	18447
D64.../40/203			203	374	20.3	7592	25.4	9490	30.5	11388	49	18326
D64.../40/254			254	296	25.4	7518	31.8	9398	38.1	11278	62	18325
D64.../40/305			305	246	30.5	7503	38.1	9379	45.8	11255	75	18450
D64W/50/064			50	25	64	1980	6.4	12672	8	15840	9.6	19008
D64W/50/076	76	1811			7.6	13764	9.5	17205	11.4	20645	14	25354
D64.../50/089	89	1410			8.9	12549	11.1	15686	13.4	18824	19	26790
D64.../50/102	102	1215			10.2	12393	12.8	15491	15.3	18590	22	26730
D64.../50/115	115	1076			11.5	12374	14.4	15468	17.3	18561	25	26900
D64.../50/127	127	968			12.7	12294	15.9	15367	19.1	18440	28	27104
D64.../50/152	152	806			15.2	12251	19	15314	22.8	18377	34	27404
D64.../50/178	178	698			17.8	12424	22.3	15531	26.7	18637	40	27920
D64.../50/203	203	612			20.3	12424	25.4	15530	30.5	18635	45	27540
D64.../50/254	254	472			25.4	11989	31.8	14986	38.1	17983	58	27376
D64.../50/305	305	388			30.5	11834	38.1	14793	45.8	17751	70	27160

Points:

نکات:

- Any damages on the surface of the springs (cutting, grinding, scratches, etc.) May significantly affect the expected lifetime.
- Apply a minimum pre-load of 5% of the total length.

۱. هرگونه آسیب بر روی سطح فنر (بریدگی، خراش، سایش و...) بطور قابل توجهی در طول عمر فنر موثر می باشد.

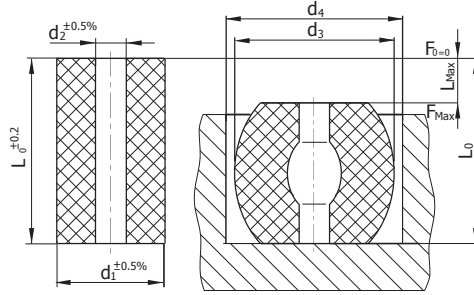
۲. پیش بار حداقل ۵ درصد از طول کل فنر در نظر گرفته شود.

**SPRING**  
Pressure Elastomer  
Material: PUR/80 Shore A

فنر  
الاستومر فشاری



# D63/80



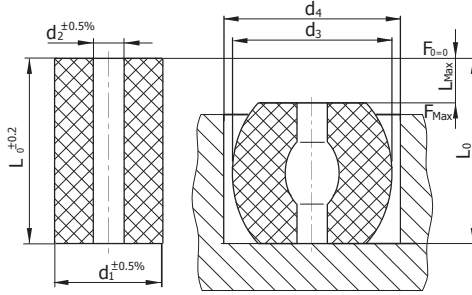
کد سفارش Ordering Code	$L_0$	$d_1$	$d_2$	$d_3$	$d_4$	$F_{max}$ (N)	$L_{max}$ 35% $L_0$
D63/80/16/12	12	16	6.5	22	26	940	4.2
D63/80/16/16	16					900	5.6
D63/80/16/20	20					880	7
D63/80/16/25	25					860	8.7
D63/80/16/32	32					830	11.2
D63/80/20/12	12	20	8.5	27	32	1440	4.2
D63/80/20/16	16					1400	5.6
D63/80/20/20	20					1350	7
D63/80/20/25	25					1330	8.7
D63/80/20/32	32					1280	11.2
D63/80/20/40	40					1260	14
D63/80/25/16	16	25	10.5	34	38	2270	5.6
D63/80/25/20	20					2200	7
D63/80/25/25	25					2160	8.7
D63/80/25/32	32					2090	11.2
D63/80/25/40	40					2050	14
D63/80/25/50	50					1980	17.5
D63/80/32/16	16	32	13.5	43	48	3850	5.6
D63/80/32/20	20					3740	7
D63/80/32/25	25					3600	8.7
D63/80/32/32	32					3460	11.2
D63/80/32/40	40					3420	14
D63/80/32/50	50					3350	17.5
D63/80/40/20	20	40	13.5	54	61	6660	7
D63/80/40/25	25					6410	8.7
D63/80/40/32	32					6190	11.2
D63/80/40/40	40					6010	14
D63/80/40/50	50					5870	17.5
D63/40/63	63					5760	22
D63/80/50/25	25	50	17	68	75	10400	8.7
D63/80/50/32	32					9970	11.2
D63/80/50/40	40					9650	14
D63/80/50/50	50					9400	17.5
D63/80/50/63	63					9140	22
D63/80/50/80	80					8980	28
D63/80/63/32	32	63	17	85	94	17600	11.2
D63/80/63/40	40					16880	14
D63/80/63/50	50					16300	17.5
D63/80/63/63	63					15770	22
D63/80/63/80	80					15260	28
D63/80/63/100	100					14940	35
D63/80/80/40	40	80	21	108	118	28690	14

کد سفارش Ordering Code	$L_0$	$d_1$	$d_2$	$d_3$	$d_4$	$F_{max}$ (N)	$L_{max}$ 35% $L_0$
D63/80/80/50	50	80	21	108	118	27500	17.5
D63/80/80/63	63					26400	22
D63/80/80/80	80					25500	28
D63/80/80/100	100					24900	35
D63/80/80/125	125					24200	43.7
D63/80/100/50	50	100	21	135	150	46700	17.5
D63/80/100/63	63					44500	22
D63/80/100/80	80					42700	28
D63/80/100/100	100					41500	35
D63/80/100/125	125					40000	43.7
D63/80/125/63	63	125	27	169	188	73900	22
D63/80/125/80	80					69500	28
D63/80/125/100	100					66100	35
D63/80/125/125	125					64800	43.7
D63/80/125/160	160					62300	56

**SPRING**  
Pressure Elastomer  
Material: PUR/90 Shore A

فنر  
الاستومر فشاری

# D63/90



کد سفارش Ordering Code	L <sub>0</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	F <sub>max</sub> (N)	L <sub>max</sub> 30%L <sub>0</sub>
D63/90/16/12	12	16	6.5	22	26	1790	3.6
D63/90/16/16	16					1730	4.8
D63/90/16/20	20					1690	6
D63/90/16/25	25					1660	7.5
D63/90/16/32	32					1590	6.9
D63/90/20/12	12	20	8.5	26	32	2760	3.6
D63/90/20/16	16					2690	4.8
D63/90/20/20	20					2590	6
D63/90/20/25	25					2550	7.5
D63/90/20/32	32					2450	9.6
D63/90/20/40	40					2420	12
D63/90/25/16	16	25	10.5	33	37	4350	4.8
D63/90/25/20	20					4210	6
D63/90/25/25	25					4140	7.5
D63/90/25/32	32					4000	9.6
D63/90/25/40	40					3930	12
D63/90/25/50	50					3800	15
D63/90/32/16	16	32	13.5	42	47	7380	4.8
D63/90/32/20	20					7180	6
D63/90/32/25	25					6900	7.5
D63/90/32/32	32					6620	9.6
D63/90/32/40	40					6560	12
D63/90/32/50	50					6420	15
D63/90/40/20	20	40	13.5	52	59	12770	6
D63/90/40/25	25					12280	7.5
D63/90/40/32	32					11870	9.6
D63/90/40/40	40					11520	12
D63/90/40/50	50					11250	15
D63/90/40/63	63					11049	18.9
D63/90/50/25	25	50	17	65	72	19940	7.5
D63/90/50/32	32					19110	9.6
D63/90/50/40	40					18500	12
D63/90/50/50	50					18000	15
D63/90/50/63	63					17530	18.9
D63/90/50/80	80					17220	24
D63/90/63/32	32	63	17	82	91	33740	9.6
D63/90/63/40	40					32360	12
D63/90/63/50	50					31260	15
D63/90/63/63	63					30220	18.9
D63/90/63/80	80					29260	24
D63/90/63/100	100					28640	30
D63/90/80/40	40	80	21	104	114	55000	12

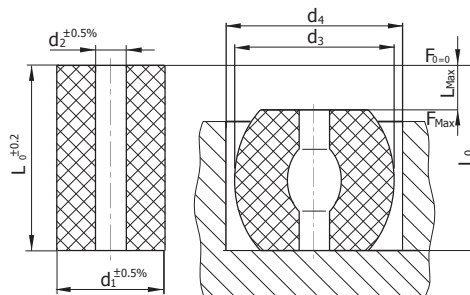
کد سفارش Ordering Code	L <sub>0</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	F <sub>max</sub> (N)	L <sub>max</sub> 30%L <sub>0</sub>
D63/90/80/50	50	80	21	104	114	52700	15
D63/90/80/63	63					50600	18.9
D63/90/80/80	80					49000	24
D63/90/80/100	100					47700	30
D63/90/80/125	125					46400	37.5
D63/90/100/50	50	100	21	130	145	89500	15
D63/90/100/63	63					85400	18.9
D63/90/100/80	80					82000	24
D63/90/100/100	100					79600	30
D63/90/100/125	125					76600	37.5
D63/90/125/63	63	125	27	163	182	142000	18.9
D63/90/125/80	80					133000	24
D63/90/125/100	100					127000	30
D63/90/125/125	125					124000	37
D63/90/125/160	160					119000	48

**SPRING**  
Pressure Elastomer  
Material: PUR/95 Shore A

فنر  
الاستومر فشاری



# D63/95



کد سفارش Ordering Code	L <sub>0</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	F <sub>max</sub> (N)	L <sub>max</sub> 25%L <sub>0</sub>
D63/95/16/12	12	16	6.5	20	26	2260	3
D63/95/16/16	16					2150	4
D63/95/16/20	20					2130	5
D63/95/16/25	25					2080	6.2
D63/95/16/32	32					2000	8
D63/95/20/12	12	20	8.5	25	32	3470	3
D63/95/20/16	16					3390	4
D63/95/20/20	20					3260	5
D63/95/20/25	25					3210	6.2
D63/95/20/32	32					3080	8
D63/95/20/40	40					3040	10
D63/95/25/16	16	25	10.5	31	36	5470	4
D63/95/25/20	20					5290	5
D63/95/25/25	25					5210	6.2
D63/95/25/32	32					5030	8
D63/95/25/40	40					4950	10
D63/95/25/50	50					4770	12.5
D63/95/32/16	16	32	13.5	40	47	9290	4
D63/95/32/20	20					9030	5
D63/95/32/25	25					8680	6.2
D63/95/32/32	32					8330	8
D63/95/32/40	40					8250	10
D63/95/32/50	50					8070	12.5
D63/95/40/20	20	40	13.5	50	57	16060	5
D63/95/40/25	25					15450	6.2
D63/95/40/32	32					14930	8
D63/95/40/40	40					14500	10
D63/95/40/50	50					14150	12.5
D63/95/40/63	63					13890	15.7
D63/95/50/25	25	50	17	62	69	25090	6.2
D63/95/50/32	32					24040	8
D63/95/50/40	40					23260	10
D63/95/50/50	50					22650	12.5
D63/95/50/63	63					22050	15.7
D63/95/50/80	80					21660	20
D63/95/63/32	32	63	17	78	84	42450	8
D63/95/63/40	40					40700	10
D63/95/63/50	50					39300	12.5
D63/95/63/63	63					38020	15.7
D63/95/63/80	80					36800	20
D63/95/63/100	100					36020	25
D63/95/80/40	40	80	21	99	109	69180	10

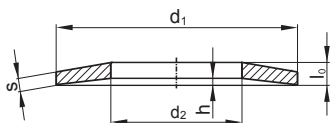
کد سفارش Ordering Code	L <sub>0</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	F <sub>max</sub> (N)	L <sub>max</sub> 25%L <sub>0</sub>
D63/95/80/50	50	80	21	99	109	66300	12.5
D63/95/80/63	63					63700	15.7
D63/95/80/80	80					61600	20
D63/95/80/100	100					60000	25
D63/95/80/125	125					58300	31.2
D63/95/100/50	50	100	21	124	139	112600	12.5
D63/95/100/63	63					107400	15.7
D63/95/100/80	80					103000	20
D63/95/100/100	100					100000	25
D63/95/100/125	125					96300	31.2
D63/95/125/63	63	125	27	155	174	178000	15.7
D63/95/125/80	80					167000	20
D63/95/125/100	100					159000	25
D63/95/125/125	125					156000	31.2
D63/95/125/160	160					150000	40

SPRING

Din 2093

فنر بشقابی

D62



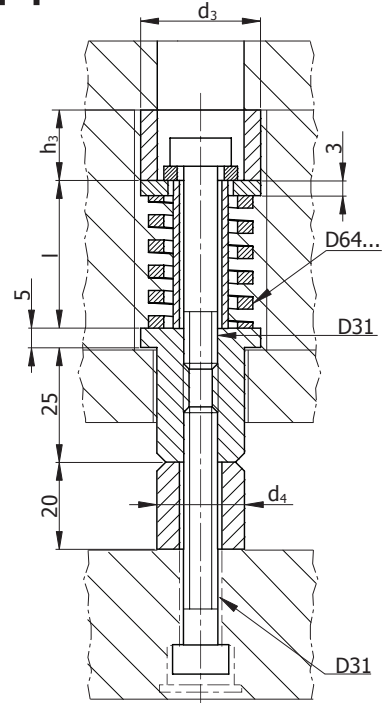
کد سفارش Ordering Code	d <sub>1</sub>	d <sub>2</sub>	S	h	l <sub>0</sub>	A 0.2h		B 0.4h		C 0.6h		D 0.7h		E 0.8h	
	mm	mm	mm	mm	mm	mm	N	mm	N	mm	N	mm	N	mm	N
D62/8/3.2/0.4	8	3.2	0.4	0.2	0.6	0.04	58	0.08	110	0.12	160	0.14	180	0.16	200
D62/10/5.2/0.4	10	5.2	0.4	0.3	0.7	0.06	73	0.12	134	0.18	180	0.21	200	0.24	220
D62/12.5/6.2/0.5	12.5	6.2	0.5	0.35	0.85	0.07	100	0.14	180	0.21	250	0.24	280	0.28	310
D62/14/7.2/0.8	14	7.2	0.8	0.3	1.1	0.06	230	0.12	450	0.18	660	0.21	770	0.24	870
D62/15/5.2/0.7	15	5.2	0.7	0.4	1.1	0.08	180	0.16	340	0.24	470	0.28	540	0.32	610
D62/16/8.2/0.6	16	8.2	0.6	0.45	1.05	0.09	145	0.18	260	0.27	360	0.31	400	0.36	440
D62/16/8.2/0.9	16	8.2	0.9	0.35	1.25	0.07	300	0.14	580	0.21	850	0.24	970	0.28	1100
D62/18/9.2/1	18	9.2	1.0	0.4	1.4	0.08	370	0.16	720	0.24	1050	0.28	1200	0.32	1350
D62/20/10.2/0.8	20	10.2	0.8	0.55	1.35	0.11	250	0.22	470	0.33	650	0.38	370	0.44	800
D62/20/10.2/0.9	20	10.2	0.9	0.55	1.45	0.11	340	0.22	640	0.33	900	0.38	1000	0.44	1150
D62/20/10.2/1.1	20	10.2	1.1	0.45	1.55	0.09	450	0.18	870	0.27	1350	0.31	1450	0.36	1650
D62/23/12.2/1.25	23	12.2	1.25	0.6	1.85	0.12	710	0.24	1360	0.36	1960	0.42	2240	0.48	2520
D62/25/12.2/1.5	25	12.2	1.5	0.55	2.05	0.11	860	0.22	1650	0.33	2450	0.38	2800	0.44	3100
D62/25/12.2/1	25	12.2	1.0	0.6	1.6	0.12	320	0.24	600	0.36	840	0.42	950	0.48	1050
D62/28/14.2/1	28	14.2	1.0	0.8	1.8	0.16	400	0.32	720	0.48	970	0.56	1100	0.64	1200
D62/28/14.2/1.5	28	14.2	1.5	0.65	2.15	0.13	850	0.26	1650	0.39	2400	0.45	2700	0.52	3100
D62/31.5/16.3/1.25	31.5	16.3	1.25	0.9	2.15	0.18	660	0.36	1200	0.54	1650	0.63	1850	0.72	2000
D62/31.5/16.3/1.75	31.5	16.3	1.75	0.7	2.45	0.14	1150	0.28	2200	0.42	3200	0.49	3700	0.56	4200
D62/35.5/18.3/2	35.5	18.3	2.0	0.8	2.8	0.16	1550	0.32	3000	0.48	4300	0.56	5000	0.64	5600
D62/40/14.3/1.5	40	14.3	1.5	1.25	2.75	0.25	950	0.50	1700	0.75	2200	0.87	2500	1.00	2700
D62/40/20.4/2.25	40	20.4	2.25	0.9	3.15	0.18	1900	0.36	3700	0.54	5400	0.63	5200	0.72	7000
D62/45/22.4/2.5	45	22.4	2.5	1	3.5	0.20	2300	0.40	4500	0.60	6400	0.70	7400	0.80	8500
D62/50/18.3/1.5	50	18.3	1.5	1.8	3.3	0.36	1200	0.72	2000	1.08	2400	1.26	2600	1.44	2700
D62/50/25.4/2.5	50	25.4	2.5	1.4	3.9	0.28	2850	0.56	5350	0.84	7600	0.98	8650	1.12	9650
D62/50/25.4/3	50	25.4	3	1.1	4.1	0.22	3500	0.44	6800	0.66	10000	0.77	11500	0.88	13000
D62/56/28.5/2	56	28.5	2	1.6	3.6	0.32	1600	0.64	2900	0.96	3900	1.12	4300	1.28	4700
D62/60/20.4/2	60	20.4	2	2.1	4.1	0.42	2000	0.84	3400	1.26	4300	1.47	4700	1.68	5000



COMBINATION SPRING AND SPACER UNIT

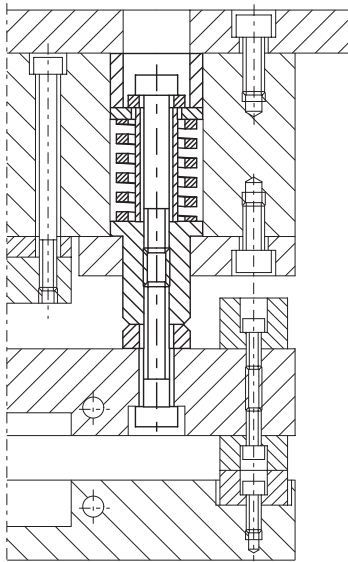
واحد فنر بندی (و اصلاح ارتفاع)

D244

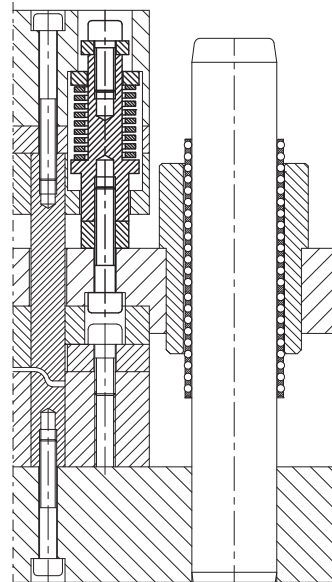


ساخت مطابق سفارش مشتری انجام می پذیرد. Producing on request.

Example:



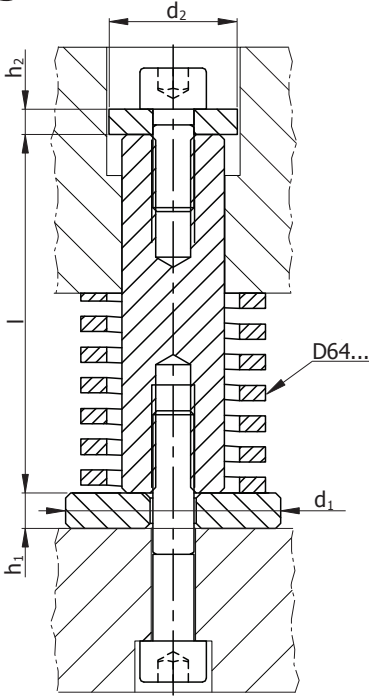
مثال:



COMBINATION SPRING AND SPACER UNIT

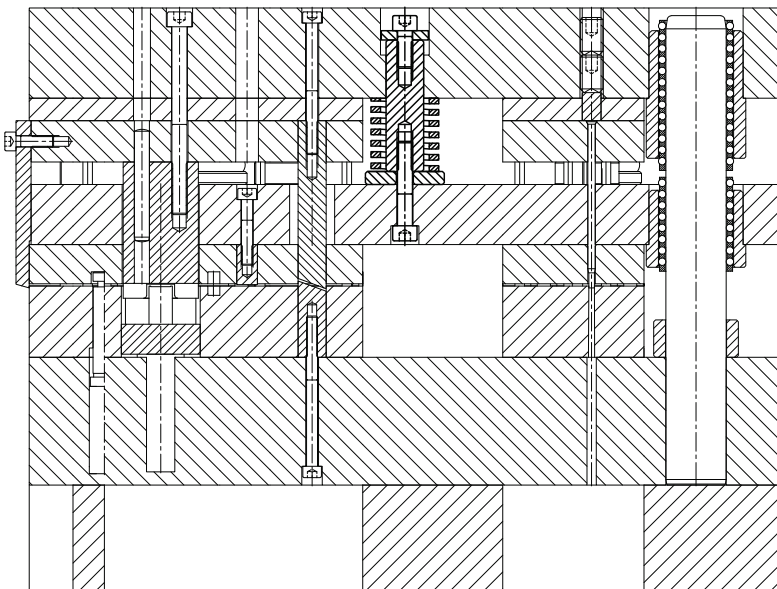
واحد فنر بندى (و اصلاح ارتفاع)

D245



Producing on request. ساخت مطابق سفارش مشتری انجام می پذیرد.

Example:



مثال:

GAS SPRING

فنر گازی



D611



25

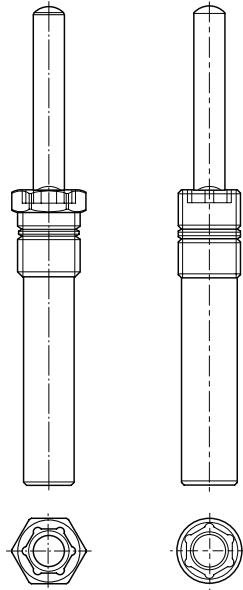
SPRING PLUNGERS

With Gas Spring (Ejector Pin Units)

بیرون انداز (فنر گازی)



D612



Example:

مثال:

